

November 26, 2007

Fluid Minerals Group  
Bureau of Land Management  
Vernal Field Office  
170 South 500 East  
Vernal, Utah 84078

RE: Application for Permit to Drill—XTO Energy, Inc.

**WBH 15-5H**

*Surface Location:* 1,255' FSL & 2,069' FWL, SE/4 SW/4,

*Target Location:* 650' FSL & 2,000' FEL, SW/4 SE/4,

Section 5, T11S, R20E, SLB&M, Uintah County, Utah

Dear Fluid Minerals Group:

On behalf of XTO Energy, Inc. Buys & Associates, Inc. respectfully submits the enclosed original and three copies of the Application for Permit to Drill (APD) for the above referenced Ute Tribal surface directional well. A request for exception to spacing (R649-3-11) is hereby requested based on topography since the well is located within 460' of the drilling unit boundary. XTO Energy, Inc. is the only owner and operator within 460' of the proposed well and all points along the intended well bore path. Included with the APD is the following supplemental information:

Exhibit "A" - Survey plats, layouts and photos of the proposed well site;

Exhibit "B" - Proposed location maps with access and utility corridors;

Exhibit "C" - Production site layout;

Exhibit "D" - Directional Drilling Plan with Directional Drilling Report;

Exhibit "E" - Surface Use Plan with APD Certification;

Exhibit "F" - Typical BOP and Choke Manifold diagram;

Exhibit "G" - Cultural and Paleontological Clearance Reports.

Thank you very much for your timely consideration of this application. Please feel free to contact myself or Ken Secrest of XTO Energy, Inc. at 435-722-4521 if you have any questions or need additional information.

Sincerely,

*Don Hamilton*  
Don Hamilton  
Agent for XTO Energy, Inc.

RECEIVED

NOV 28 2007

DIV. OF OIL, GAS & MINING

cc: Diana Mason, Division of Oil, Gas and Mining  
Mike James, Ute Indian Tribe - Energy & Minerals  
Ken Secrest, XTO Energy, Inc.

FILE COPY

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED  
OMB No. 1004-0137  
Expires March 31, 2007

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. UTU-39223
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name Ute Indian Tribe
2. Name of Operator XTO Energy, Inc.		7. If Unit or CA Agreement, Name and No. N/A
3a. Address PO Box 1360; 978 North Crescent Roosevelt, UT 84066	3b. Phone No. (include area code) 435-722-4521	8. Lease Name and Well No. WHB 15-5H
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 1,255' FSL & 2,069' FWL, SE/4 SW/4, At proposed prod. zone 650' FSL & 2,000' FEL, SW/4 SE/4,		9. API Well No. 43047-39848
14. Distance in miles and direction from nearest town or post office* 14.09 miles south of Ouray, Utah		10. Field and Pool, or Exploratory undesignated
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1,380'		11. Sec., T. R. M. or Blk. and Survey or Area Section 5, T11S, R20E, SLB&M
16. No. of acres in lease 715.864 acres		12. County or Parish Utah
17. Spacing Unit dedicated to this well 40 acres		13. State UT
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 20'		19. Proposed Depth 9,385' MD (9,097' TVD)
20. BLM/BIA Bond No. on file UTB-000138 / 104312 789		
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 5,512' GR	22. Approximate date work will start* 01/15/2008	23. Estimated duration 14 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature <u>Don Hamilton</u>	Name (Printed/Typed) Don Hamilton	Date 11/26/2007
-----------------------------------	--------------------------------------	--------------------

Title  
Agent for XTO Energy, Inc.

Approved by (Signature) <u>[Signature]</u>	Name (Printed/Typed) BRADLEY G. HILL	Date 12-03-07
Title	Off. ENVIRONMENTAL MANAGER	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on page 2)

Surf

610826X  
4415657Y  
39.885629  
109.703878

BHL

611183X  
4415479Y  
39.883973  
109.699728

Federal Approval of this  
Action is Necessary

RECEIVED  
NOV 28 2007  
DIV. OF OIL, GAS & MINING

T11S, R20E, S.L.B.&M.

31

T10S  
T11S

S89°58'E - 4045.80' (G.L.O.)

S89°58'E  
1321.32' (G.L.O.)

CC  
Set Marked  
Stone

LOT 4

LOT 3

LOT 2

LOT 1

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.

5

S00°49'47"W - 5256.08' (Meas.)

N00°03'W - 5174.40' (G.L.O.)

WHB #15-5H

Elev. Ungraded Ground = 5512'

2069'

S63°44'03"E  
1362.78'

1255'

2000'

Bottom Hole

650'

Set Marked  
Stone

S89°55'38"W - 2663.24' (Meas.)

N89°56'E - 2645.28' (G.L.O.)

Set Marked  
Stone, Pile of  
Stones

# LEGEND:

- └─ = 90° SYMBOL
- = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.
- △ = SECTION CORNERS RE-ESTABLISHED.  
(Not Set On Ground)

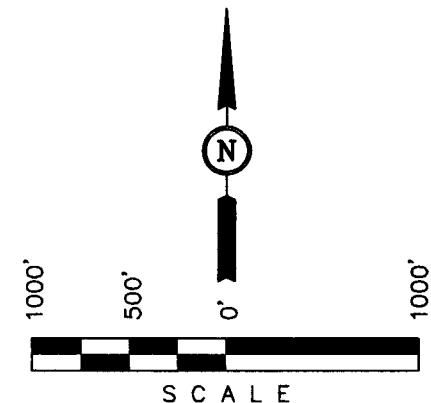
(NAD 83)  
LATITUDE = 39°53'07.54" (39.885428)  
LONGITUDE = 109°42'17.04" (109.704733)  
(NAD 27)  
LATITUDE = 39°53'07.66" (39.885461)  
LONGITUDE = 109°42'14.55" (109.704042)

DOMINION EXPLR. & PROD., INC.

Well location, WHB #15-5H, located as shown in the SE 1/4 SW 1/4 of Section 5, T11S, R20E, S.L.B.&M., Uintah County, Utah.

## BASIS OF ELEVATION

SPOT ELEVATION AT THE SOUTHWEST CORNER OF SECTION 20, T10S, R20E, S.L.B.&M., TAKEN FROM THE BIG PACK MTN. NW QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5251 FEET.



## CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

*[Signature]*  
REGISTERED LAND SURVEYOR  
REGISTRATION NO. 161319  
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING  
85 SOUTH 200 EAST - VERNAL, UTAH 84078  
(435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 03-28-07	DATE DRAWN: 04-09-07
PARTY D.S. MB. S.L.	REFERENCES G.L.O. PLAT	
WEATHER WARM	FILE DOMINION EXPLR. & PROD., INC.	

# XTO ENERGY INC.

WHB 15-5H

APD Data

November 7, 2007

Location: 1255' FSL & 2069' FWL, Sec. 21, T11S, R20E County: Uintah

State: Utah

Bottomhole Location: 650' FSL & 2000' FEL, Sec. 31, T11S, R20E

GREATEST PROJECTED TD: 9385' MD/ 9097' TVD  
APPROX GR ELEV: 5512'

OBJECTIVE: Wasatch/Mesaverde  
Est KB ELEV: 5526' (14' AGL)

## 1. MUD PROGRAM:

INTERVAL	0' to 500'	500' to 4500'	4500' to 9385'
HOLE SIZE	17.5"	12.25"	7.875"
MUD TYPE	FW/Spud Mud	FW/Polymer	KCl Based LSND / Gel Chemical
WEIGHT	8.4	8.4-8.8	8.6-9.20
VISCOSITY	NC	28-40	30-60
WATER LOSS	NC	NC	8-15

Remarks: Use fibrous materials as needed to control seepage and lost circulation. Pump high viscosity sweeps as needed for hole cleaning. Raise viscosity at TD for logging. Reduce viscosity after logging for cementing purposes. The mud system will be monitored visually/manually.

## 2. CASING PROGRAM:

Surface Casing: 13.375" casing set at  $\pm 500'$  in a 17.5" hole filled with 8.4 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'-500'	500'	48#	H-40	ST&C	770	7.56	322	12.715	12.56	3.37	7.56	13.42

Intermediate Casing: 9.625" casing set at  $\pm 4500'$  MD/4212' TVD in a 12.25" hole filled with 8.8 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'-4500'	4500'	36#	J-55	ST&C	2020	3520	394	8.921	8.765	1.34	2.34	2.43

Collapse and burst loads calculated at TVD with 0.1 psi/ft gas gradient back up.

Production Casing: 5.5" casing set at  $\pm 9385'$  MD/9097' TVD in a 7.875" hole filled with 9.2 ppg mud.

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'-9385'	9385'	17#	N-80	LT&C	6280	7740	348	4.892	4.767	1.82	2.25	2.18

Collapse and burst loads calculated at TVD with 0.1 psi/ft gas gradient back up.

## 3. WELLHEAD:

- Casing Head: Larkin Fig 92 (or equivalent), 13" nominal, 2,000 psig WP (4,000 psig test) with 13-3/8" weld on bottom and an 11" flange on top.
- Tubing Head: Larkin Fig 612 (or equivalent), 7-1/16" nominal, 5,000 psig WP, 5-1/2" 8rnd female thread on bottom (or slip-on, weld-on), with a 2-1/16" 5M flange on top.

#### 4. **CEMENT PROGRAM:**

- A. **Surface:** 13.375", 48#, H-40, ST&C casing to be set at  $\pm 500'$  in 17.5" hole.

$\pm 337$  sx of Type V cement (or equivalent) typically containing accelerator and LCM.

***Total estimated slurry volume for the 13.375" surface casing is 646.3 ft<sup>3</sup>. Slurry includes 67% excess of calculated open hole annular volume to 500'.***

- B. **Intermediate:** 9.625", 36#, J-55 (or equiv.), ST&C casing to be set at  $\pm 4500'$  in 12.25" hole.

**LEAD:**

$\pm 518$  sx of Premium Plus V Blend. (Type V/Poz/Gel) or equivalent, with dispersant, fluid loss, accelerator, & LCM mixed at 11.0 ppg, 3.82 ft<sup>3</sup>/sk, 22.95 gal wtr/sx.

**TAIL:**

350 sx Class G or equivalent cement with bonding additive, LCM, dispersant, & fluid loss mixed at 15.6 ppg, 1.2 cuft/sx

***Total estimated slurry volume for the 9.625" intermediate casing is 2400 ft<sup>3</sup>. Slurry includes 75% excess of calculated open hole annular volume to 4500'.***

- C. **Production:** 5.5", 17#, N-80 (or equiv.), LT&C casing to be set at  $\pm 9385'$  in 7.875" hole.

**LEAD:**

$\pm 133$  sx of Premium Plus V Blend. (Type V/Poz/Gel) or equivalent, with dispersant, fluid loss, accelerator, & LCM mixed at 11.6 ppg, 3.12 ft<sup>3</sup>/sk, 17.71 gal wtr/sx.

**TAIL:**

400 sx Class G or equivalent cement with poz, bonding additive, LCM, dispersant, & fluid loss mixed at 13.0 ppg, 1.75 cuft/sx, 9.09 gal/sx.

***Total estimated slurry volume for the 5.5" production casing is 1114 ft<sup>3</sup>. Slurry includes 15% excess of calculated open hole annular volume.***

***Note: The slurry design may change slightly based upon actual conditions. Final cement volumes will be determined from the caliper logs plus 15% or greater excess. The cement is designed to circulate on surface and intermediate casing strings. The production casing is designed for 4000' top of cement.***

#### 5. **LOGGING PROGRAM:**

- A. Mud Logger: The mud logger will come on at intermediate casing point and will remain on the hole until TD. The mud will be logged in 10' intervals.
- B. Open Hole Logs as follows: Run Array Induction/SFL/GR/SP fr/TD (9385') to the bottom of the intermediate csg. Run Neutron/Lithodensity/Pe/GR/Cal from TD (9385') to 4500'.

#### 6. **FORMATION TOPS:**

Please see attached directional plan.

**7. ANTICIPATED OIL, GAS, & WATER ZONES:**

A.

Formation	Expected Fluids	TV Depth Top
Wasatch Tongue	Oil/Gas/Water	3721
Green River Tongue	Oil/Gas/Water	4061
Wasatch	Gas/Water	4206
Chapita Wells	Gas/Water	5011
Uteland Buttes	Gas/Water	6291
Mesaverde	Gas/Water	7086

B. Appropriately weighted mud will be used to isolate potential gas, oil, and water zones until such time as casing can be cemented into place for zonal isolation.

C. There are no known potential sources of H<sub>2</sub>S.

D. The bottomhole pressure is anticipated to be between 4200 psi and 4600 psi.

**8. BOP EQUIPMENT:**

Surface will not utilize a bop stack.

Intermediate hole will be drilled using a diverter stack with rotating head rated at 250 psi.

Production hole will be drilled with a 3000 psi BOP stack.

Minimum specifications for pressure control equipment are as follows:

Ram Type: 11" Hydraulic double ram with annular, 3000 psi w.p.

Ram type preventers and associated equipment shall be tested to stack working pressure if isolated by test plug or to 70% of internal yield pressure of casing. Pressure shall be maintained for at least 10 minutes or until requirements of test are met, whichever is longer. If a test plug is utilized, no bleed-off pressure is acceptable. For a test not utilizing a test plug, if a decline in pressure of more than 10% in 30 minutes occurs, the test shall be considered to have failed. Valve on casing head below test plug shall be open during test of BOP stack.

Annular type preventers (if used) shall be tested to 50% of rated working pressure. Pressure shall be maintained at least 10 minutes or until provisions of test are met, whichever is longer.

As a minimum, the above test shall be performed:

- a. when initially installed:
- b. whenever any seal subject to test pressure is broken
- c. following related repairs: and
- d. at 30 day intervals

Valves shall be tested from working pressure side during BOPE tests with all down stream valves open.

When testing the kill line valve(s) shall be held open or the ball removed.

Annular preventers (if used) shall be functionally operated at least weekly.

Pipe and blind rams shall be activated each trip, however, this function need not be performed more than once a day.

A BOPE pit level drill shall be conducted weekly for each drilling crew.

The BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No.2 for equipment and testing requirements, procedures, etc., and individual components shall be operable as designed. Chart recorders shall be used for all pressure tests. Pressure tests shall apply to all related well control equipment.

BOP systems shall be consistent with API RP53. Pressure tests will be conducted before drilling out from under casing strings which have been set and cemented in place. Test pressures for BOP equipment are as follows:

- Annular BOP -- 1500 psi
- Ram type BOP -- 3000 psi
- Kill line valves -- 3000 psi
- Choke line valves and choke manifold valves -- 3000 psi
- Chokes -- 3000 psi
- Casing, casinghead & weld -- 1500 psi
- Upper kelly cock and safety valve -- 3000 psi
- Dart valve -- 3000 psi

Blowout preventer controls will be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection will be recorded on the daily drilling report. Preventers will be pressure tested before drilling casing cement plugs.

The BLM in Vernal, UT shall be notified, at least 24 hours prior to initiating the pressure test, in order to have a BLM representative on location during pressure testing.

- a. The size and rating of the BOP stack is shown on the attached diagram.
- b. A choke line and a kill line are to be properly installed.
- c. The accumulator system shall have a pressure capacity to provide for repeated operation of hydraulic preventers.
- d. Drill string safety valve(s), to fit all tools in the drill string, are to be maintained on the rig floor while drilling operations are in progress.
- e. See attached BOP & Choke manifold diagrams.

**9. COMPANY PERSONNEL:**

<u>Name</u>	<u>Title</u>	<u>Office Phone</u>	<u>Home Phone</u>
John Egelston	Drilling Engineer	505-333-3163	505-330-6902
Bobby Jackson	Drilling Superintendent	505-333-3224	505-486-4706
Glen Christiansen	Project Geologist	817-885-2800	

# **XTO Energy**

**Natural Buttes Wells(NAD83)**

**WHB 15-5H**

**WHB 15-5H**

**WHB 15-5H**

**Plan: Original Permitted Plan**

## **Standard Planning Report**

**05 November, 2007**



**XTO Energy, Inc.**  
Planning Report

**Database:** EDM 2003.14 Single User Db  
**Company:** XTO Energy  
**Project:** Natural Buttes Wells(NAD83)  
**Site:** WHB 15-5H  
**Well:** WHB 15-5H  
**Wellbore:** WHB 15-5H  
**Design:** Original Permitted Plan

**Local Co-ordinate Reference:** Well WHB 15-5H  
**TVD Reference:** Rig KB @ 5526.0ft (Frontier #6)  
**MD Reference:** Rig KB @ 5526.0ft (Frontier #6)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

<b>Project</b>	Natural Buttes Wells(NAD83), Vernal, UT		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		Using Well Reference Point
<b>Map Zone:</b>	Utah Northern Zone		

<b>Site</b>	WHB 15-5H, T11S, R20E			
<b>Site Position:</b>		<b>Northing:</b>	3,122,844.44 ft	<b>Latitude:</b> 39° 53' 7.541 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,144,307.62 ft	<b>Longitude:</b> 109° 42' 17.039 W
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	"	<b>Grid Convergence:</b> 1.18 °

<b>Well</b>	WHB 15-5H, S-Well to Wasatch Mesaverde			
<b>Well Position</b>	+N-S	0.0 ft	<b>Northing:</b>	3,122,844.44 ft
	+E-W	0.0 ft	<b>Easting:</b>	2,144,307.62 ft
<b>Position Uncertainty</b>	0.0 ft	<b>Wellhead Elevation:</b>	5,512.0 ft	<b>Ground Level:</b> 5,512.0 ft

<b>Wellbore</b>	WHB 15-5H				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF200510	11/5/2007	11.59	65.83	52.614

<b>Design</b>	Original Permitted Plan				
<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE		<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N-S</b>	<b>+E-W</b>	<b>Direction</b>	
	(ft)	(ft)	(ft)	(°)	
	0.0	0.0	0.0	116.26	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
560.0	0.00	0.00	560.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,440.5	26.41	116.26	1,409.6	-88.2	178.8	3.00	3.00	0.00	116.26	
3,607.5	26.41	116.26	3,350.4	-514.7	1,043.3	0.00	0.00	0.00	0.00	
4,487.9	0.00	0.00	4,200.0	-603.0	1,222.1	3.00	-3.00	0.00	180.00	WHB 15-5H – Reque
9,387.9	0.00	0.00	9,100.0	-603.0	1,222.1	0.00	0.00	0.00	0.00	

# XTO Energy, Inc.

## Planning Report

**Database:** EDM 2003.14 Single User Db  
**Company:** XTO Energy  
**Project:** Natural Buttes Wells(NAD83)  
**Site:** WHB 15-5H  
**Well:** WHB 15-5H  
**Wellbore:** WHB 15-5H  
**Design:** Original Permitted Plan

**Local Co-ordinate Reference:** Well WHB 15-5H  
**TVD Reference:** Rig KB @ 5526.0ft (Frontier #6)  
**MD Reference:** Rig KB @ 5526.0ft (Frontier #6)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
13 3/8"									
560.0	0.00	0.00	560.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	1.20	116.26	600.0	-0.2	0.4	0.4	3.00	3.00	0.00
700.0	4.20	116.26	699.9	-2.3	4.6	5.1	3.00	3.00	0.00
800.0	7.20	116.26	799.4	-6.7	13.5	15.1	3.00	3.00	0.00
900.0	10.20	116.26	898.2	-13.4	27.1	30.2	3.00	3.00	0.00
1,000.0	13.20	116.26	996.1	-22.3	45.3	50.5	3.00	3.00	0.00
1,100.0	16.20	116.26	1,092.8	-33.6	68.0	75.8	3.00	3.00	0.00
1,200.0	19.20	116.26	1,188.1	-47.0	95.3	106.2	3.00	3.00	0.00
1,300.0	22.20	116.26	1,281.6	-62.6	127.0	141.6	3.00	3.00	0.00
1,400.0	25.20	116.26	1,373.2	-80.4	163.0	181.8	3.00	3.00	0.00
1,440.5	26.41	116.26	1,409.6	-88.2	178.8	199.4	3.00	3.00	0.00
1,500.0	26.41	116.26	1,462.9	-99.9	202.6	225.9	0.00	0.00	0.00
1,600.0	26.41	116.26	1,552.5	-119.6	242.5	270.4	0.00	0.00	0.00
1,700.0	26.41	116.26	1,642.0	-139.3	282.3	314.8	0.00	0.00	0.00
1,800.0	26.41	116.26	1,731.6	-159.0	322.2	359.3	0.00	0.00	0.00
1,900.0	26.41	116.26	1,821.2	-178.7	362.1	403.8	0.00	0.00	0.00
2,000.0	26.41	116.26	1,910.7	-198.3	402.0	448.3	0.00	0.00	0.00
2,100.0	26.41	116.26	2,000.3	-218.0	441.9	492.8	0.00	0.00	0.00
2,200.0	26.41	116.26	2,089.8	-237.7	481.8	537.3	0.00	0.00	0.00
2,300.0	26.41	116.26	2,179.4	-257.4	521.7	581.8	0.00	0.00	0.00
2,400.0	26.41	116.26	2,269.0	-277.1	561.6	626.2	0.00	0.00	0.00
2,500.0	26.41	116.26	2,358.5	-296.8	601.5	670.7	0.00	0.00	0.00
2,600.0	26.41	116.26	2,448.1	-316.4	641.4	715.2	0.00	0.00	0.00
2,700.0	26.41	116.26	2,537.6	-336.1	681.3	759.7	0.00	0.00	0.00
2,800.0	26.41	116.26	2,627.2	-355.8	721.2	804.2	0.00	0.00	0.00
2,900.0	26.41	116.26	2,716.8	-375.5	761.1	848.7	0.00	0.00	0.00
3,000.0	26.41	116.26	2,806.3	-395.2	801.0	893.2	0.00	0.00	0.00
3,100.0	26.41	116.26	2,895.9	-414.9	840.9	937.6	0.00	0.00	0.00
3,200.0	26.41	116.26	2,985.4	-434.5	880.8	982.1	0.00	0.00	0.00
3,300.0	26.41	116.26	3,075.0	-454.2	920.7	1,026.6	0.00	0.00	0.00
3,400.0	26.41	116.26	3,164.6	-473.9	960.6	1,071.1	0.00	0.00	0.00
3,500.0	26.41	116.26	3,254.1	-493.6	1,000.4	1,115.6	0.00	0.00	0.00
3,607.5	26.41	116.26	3,350.4	-514.7	1,043.3	1,163.4	0.00	0.00	0.00
3,700.0	23.64	116.26	3,434.2	-532.1	1,078.4	1,202.5	3.00	-3.00	0.00
3,800.0	20.64	116.26	3,526.8	-548.7	1,112.2	1,240.2	3.00	-3.00	0.00
3,900.0	17.64	116.26	3,621.3	-563.2	1,141.6	1,273.0	3.00	-3.00	0.00
4,000.0	14.64	116.26	3,717.3	-575.5	1,166.5	1,300.8	3.00	-3.00	0.00
4,003.8	14.53	116.26	3,721.0	-575.9	1,167.4	1,301.7	3.00	-3.00	0.00
Wasatch Tongue									
4,100.0	11.64	116.26	3,814.7	-585.6	1,186.9	1,323.5	3.00	-3.00	0.00
4,200.0	8.64	116.26	3,913.1	-593.4	1,202.7	1,341.1	3.00	-3.00	0.00
4,300.0	5.64	116.26	4,012.4	-598.9	1,213.8	1,353.5	3.00	-3.00	0.00
4,348.8	4.17	116.26	4,061.0	-600.7	1,217.6	1,357.7	3.00	-3.00	0.00
Green River Tongue									
4,400.0	2.64	116.26	4,112.1	-602.1	1,220.3	1,360.8	3.00	-3.00	0.00
4,487.9	0.00	0.00	4,200.0	-603.0	1,222.1	1,362.8	3.00	-3.00	0.00

# XTO Energy, Inc.

## Planning Report

**Database:** EDM 2003.14 Single User Db  
**Company:** XTO Energy  
**Project:** Natural Buttes Wells(NAD83)  
**Site:** WHB 15-5H  
**Well:** WHB 15-5H  
**Wellbore:** WHB 15-5H  
**Design:** Original Permitted Plan

**Local Co-ordinate Reference:** Well WHB 15-5H  
**TVD Reference:** Rig KB @ 5526.0ft (Frontier #6)  
**MD Reference:** Rig KB @ 5526.0ft (Frontier #6)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
<b>WHB 15-5H -- Requested BHL</b>									
4,493.9	0.00	0.00	4,206.0	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
<b>Wasatch</b>									
4,500.0	0.00	0.00	4,212.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
<b>9 5/8"</b>									
4,600.0	0.00	0.00	4,312.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
4,700.0	0.00	0.00	4,412.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
4,800.0	0.00	0.00	4,512.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
4,900.0	0.00	0.00	4,612.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
5,000.0	0.00	0.00	4,712.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
5,100.0	0.00	0.00	4,812.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
5,200.0	0.00	0.00	4,912.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
5,298.9	0.00	0.00	5,011.0	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
<b>Chapita Wells</b>									
5,300.0	0.00	0.00	5,012.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
5,400.0	0.00	0.00	5,112.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
5,500.0	0.00	0.00	5,212.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
5,600.0	0.00	0.00	5,312.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
5,700.0	0.00	0.00	5,412.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
5,800.0	0.00	0.00	5,512.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
5,900.0	0.00	0.00	5,612.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
6,000.0	0.00	0.00	5,712.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
6,100.0	0.00	0.00	5,812.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
6,200.0	0.00	0.00	5,912.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
6,300.0	0.00	0.00	6,012.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
6,400.0	0.00	0.00	6,112.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
6,500.0	0.00	0.00	6,212.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
6,578.9	0.00	0.00	6,291.0	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
<b>Uteland Buttes</b>									
6,600.0	0.00	0.00	6,312.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
6,700.0	0.00	0.00	6,412.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
6,800.0	0.00	0.00	6,512.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
6,900.0	0.00	0.00	6,612.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
7,000.0	0.00	0.00	6,712.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
7,100.0	0.00	0.00	6,812.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
7,200.0	0.00	0.00	6,912.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
7,300.0	0.00	0.00	7,012.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
7,373.9	0.00	0.00	7,086.0	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
<b>Mesaverde</b>									
7,400.0	0.00	0.00	7,112.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
7,500.0	0.00	0.00	7,212.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
7,600.0	0.00	0.00	7,312.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
7,700.0	0.00	0.00	7,412.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
7,800.0	0.00	0.00	7,512.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
7,900.0	0.00	0.00	7,612.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
8,000.0	0.00	0.00	7,712.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
8,100.0	0.00	0.00	7,812.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
8,200.0	0.00	0.00	7,912.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
8,300.0	0.00	0.00	8,012.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
8,400.0	0.00	0.00	8,112.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
8,500.0	0.00	0.00	8,212.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
8,600.0	0.00	0.00	8,312.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00

**XTO Energy, Inc.**  
Planning Report

**Database:** EDM 2003.14 Single User Db  
**Company:** XTO Energy  
**Project:** Natural Buttes Wells(NAD83)  
**Site:** WHB 15-5H  
**Well:** WHB 15-5H  
**Wellbore:** WHB 15-5H  
**Design:** Original Permitted Plan

**Local Co-ordinate Reference:** Well WHB 15-5H  
**TVD Reference:** Rig KB @ 5526.0ft (Frontier #6)  
**MD Reference:** Rig KB @ 5526.0ft (Frontier #6)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

**Planned Survey**

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,700.0	0.00	0.00	8,412.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
8,800.0	0.00	0.00	8,512.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
8,900.0	0.00	0.00	8,612.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
9,000.0	0.00	0.00	8,712.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
9,100.0	0.00	0.00	8,812.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
9,200.0	0.00	0.00	8,912.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
9,300.0	0.00	0.00	9,012.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
9,385.0	0.00	0.00	9,097.1	-603.0	1,222.1	1,362.8	0.00	0.00	0.00
5 1/2"									
9,387.9	0.00	0.00	9,100.0	-603.0	1,222.1	1,362.8	0.00	0.00	0.00

**Targets**

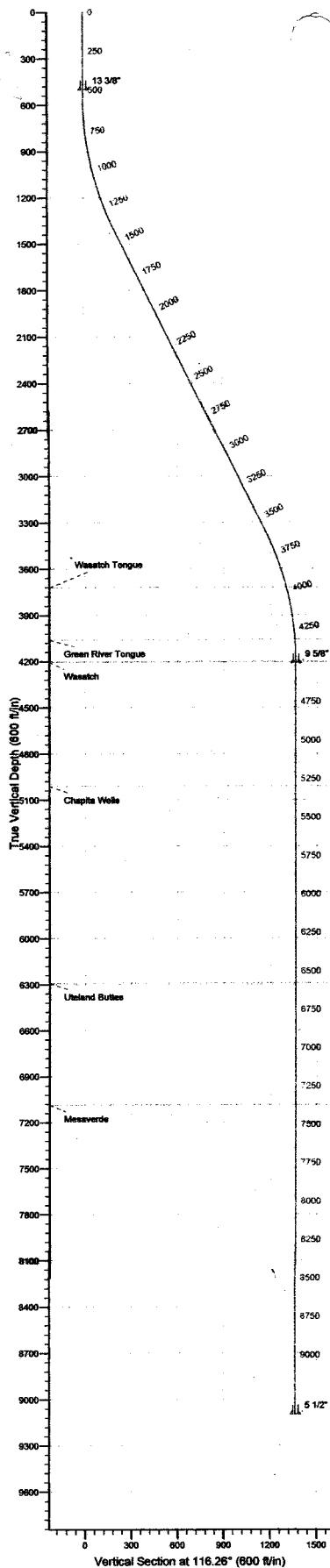
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N-S (ft)	+E-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
WHB 15-5H -- Requeste - plan hits target - Circle (radius 50.0)	0.00	0.00	4,200.0	-603.0	1,222.1	3,122,266.86	2,145,541.95	39° 53' 1.583 N	109° 42' 1.365 W

**Casing Points**

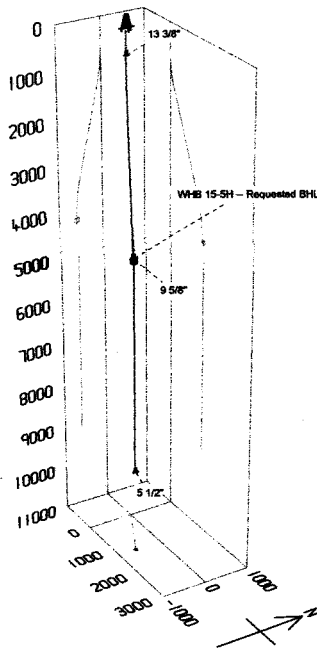
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
500.0	500.0	13 3/8"	13-3/8	17-1/2
4,500.0	4,212.1	9 5/8"	9-5/8	12-1/4
9,385.0	9,097.1	5 1/2"	5-1/2	7-7/8

**Formations**

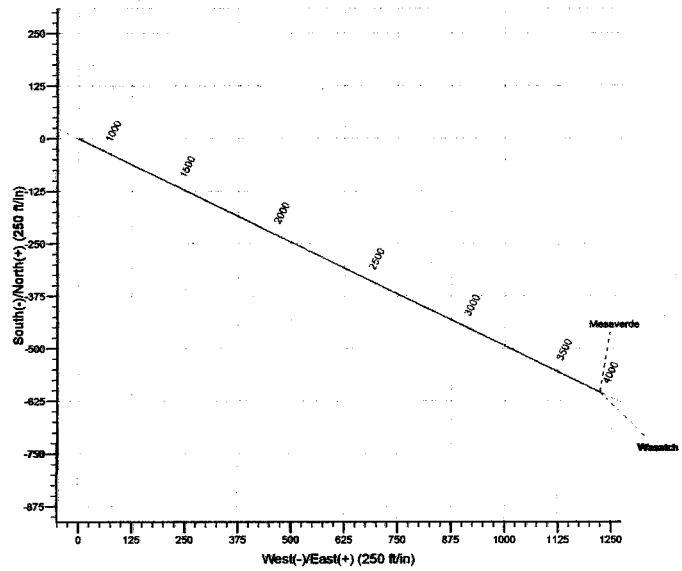
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,003.8	3,721.0	Wasatch Tongue		0.00	
4,348.8	4,061.0	Green River Tongue		0.00	
4,493.9	4,206.0	Wasatch		0.00	
5,298.9	5,011.0	Chapita Wells		0.00	
6,578.9	6,291.0	Uteland Buttes		0.00	
7,373.9	7,086.0	Mesaverde		0.00	



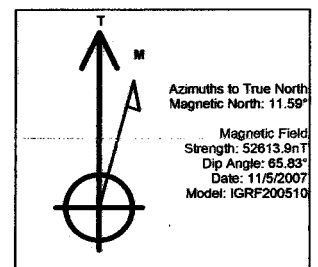
WELL DETAILS: WHB 15-5H	
Ground Level: 5512.0	1255.0 FSL
	2069.0 FWL
Project: Natural Buttes Wells(NAD83)	
Site: WHB 15-5H	
Well: WHB 15-5H	
Wellbore: WHB 15-5H	
Original Permitted Plan	



FORMATION TOP DETAILS			
TVDPath	MDPath	Formation	
3721.0	4003.8	Wasatch Tongue	
4061.0	4348.8	Green River Tongue	
4206.0	4493.9	Wasatch	
5011.0	5298.9	Chapita Wells	
6291.0	6578.9	Uteland Buttes	
7086.0	7373.9	Mesaverde	
CASING DETAILS			
TVD	MD	Name	Size
500.0	500.0	13 3/8"	13-3/8
4212.1	4500.0	9 5/8"	9-5/8
9097.1	9385.0	5 1/2"	5-1/2
PROJECT DETAILS: Natural Buttes Wells(NAD83)			
Geodetic System: US State Plane 1983			
Datum: North American Datum 1983			
Ellipsoid: GRS 1980			
Zone: Utah Northern Zone			
System Datum: Mean Sea Level			



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	590.0	0.00	0.00	590.0	0.0	0.0	0.00	0.00	0.0	
3	1440.5	26.41	116.28	1409.8	-88.2	178.8	3.00	116.28	-121.3	
4	3607.5	26.41	116.28	3350.4	-514.7	1043.3	0.00	0.00	-707.7	
5	4487.9	0.00	0.00	4200.0	-603.0	1222.1	3.00	180.00	-829.0	WHB 15-5H - Requested BHL
6	9387.9	0.00	0.00	9100.0	-603.0	1222.1	0.00	0.00	-829.0	



## **SURFACE USE PLAN**

### **CONDITIONS OF APPROVAL**

#### ***Attachment for Permit to Drill***

**Name of Operator:** XTO Energy, Inc.  
**Address:** P.O. Box 1360; 978 North Crescent  
Roosevelt, Utah 84066  
**Well Location:** WBH 15-5H  
*Surface Location:* 1,255' FSL & 2,069' FWL, SE/4 SW/4,  
*Target Location:* 650' FSL & 2,000' FEL, SW/4 SE/4,  
Section 5, T11S, R20E, SLB&M, Uintah County, Utah

The surface owner or surface owner representative and dirt contractor will be provided with an approved copy of the surface use plan of operations and approved conditions of approval before initiating construction.

The BLM onsite inspection for the referenced well was conducted on Wednesday, June 6, 2007 at approximately 1:30 pm. In attendance at the onsite inspection were the following individuals:

Bruce Pargeets	Tribal Technician	Ute Indian Tribe – Energy & Minerals
Shawnee Guzman	BIA Technician	Bureau of Indian Affairs – U & O Agency
Karl Wright	Nat. Res. Prot. Spec.	Bureau of Land Management – Vernal
Ken Secrest	Regulatory Coordinator	XTO Energy, Inc.
Danny Rasmussen	Surveyor	Uintah Engineering & Land Surveying
Randy Jackson	Owner	Jackson Construction
Billy McClure	Foreman	LaRose Construction
Don Hamilton	Agent	Buys & Associates, Inc.

1. **Location of Existing Roads:**

- a. The proposed well site is located approximately 14.09 miles south of Ouray, UT.
- b. Directions to the proposed well site have been attached at the end of Exhibit B.
- c. The use of roads under State and County Road Department maintenance are necessary to access the Wild Horse Bench area. However, an encroachment permit is not anticipated since no upgrades to the State or County Road system are proposed at this time.
- d. All existing roads will be maintained and kept in good repair during all phases of operation.
- e. Vehicle operators will obey posted speed restrictions and observe safe speeds commensurate with road and weather conditions.
- f. Since no improvements are anticipated to the State, County, Tribal or BLM access roads no topsoil striping will occur.
- g. An off-lease federal Right-of-Way is not anticipated for the access road or utility corridor since both are located entirely on tribal surface with surface use presently in place.

2. Planned Access Roads:

- a. From the existing Wild Horse Ranch access road an access is proposed trending east consisting of 2.5 miles of two-track upgrade and 280' of new disturbance to the proposed well site. The access crosses no significant drainages.
- b. A road design plan is not anticipated at this time.
- c. The proposed access road will consist of a 24' travel surface within a 30' disturbed area across Ute Indian Tribe lands.
- d. BLM approval to construct and utilize the proposed access road is requested with this application.
- e. A maximum grade of 10% will be maintained throughout the project.
- f. No turnouts are proposed since adequate site distance exists in all directions.
- g. No low water crossings and no culverts are anticipated. Adequate drainage structures will be incorporated into the road.
- h. No surfacing material will come from federal or Indian lands.
- i. No gates or cattle guards are anticipated at this time.
- j. Surface disturbance and vehicular travel will be limited to the approved location access road.
- k. All access roads and surface disturbing activities will conform to the standards outlined in the Bureau of Land Management and Forest Service publication: Surface Operating Standards for Oil and Gas Exploration and Development, (1989).
- l. The operator will be responsible for all maintenance of the access road including drainage structures.

3. Location of Existing Wells:

- a. Exhibit B has a map reflecting these wells within a one mile radius of the proposed well.

4. Location of Existing and/or Proposed Production Facilities:

- a. All permanent structures will be painted a flat, non-reflective Desert Brown /Carlsbad Canyon to match the standard environmental colors. All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) may be excluded.
- b. Site security guidelines identified in 43 CFR 3163.7-5 and Onshore Oil and Gas Order No. 3 will be adhered to.
- c. A gas meter run will be constructed and located on lease within 500 feet of the wellhead. Meter runs will be housed and/or fenced. All gas production and measurement shall comply with the provisions of 43 CFR 3162. 7-3, Onshore Oil and Gas Order No. 3, and American Gas Association (AGA) Report No. 3.
- d. A tank battery will be constructed on this lease, it will be surrounded by a dike of sufficient

capacity to contain the storage capacity of the largest tank. All loading lines and valves will be placed inside the berm surrounding the tank battery. All liquid hydrocarbons production and measurement shall conform to the provisions of 43 CFR 3162.7-3 and Onshore Oil and Gas Order No. 4 and Onshore Oil and Gas Order No. 5 for natural gas production and measurement.

- e. Any necessary pits will be properly fenced to prevent any wildlife and livestock entry.
- f. All access roads will be maintained as necessary to prevent erosion and accommodate year-round traffic. The road will be maintained in a safe useable condition.
- g. The site will require periodic maintenance to ensure that drainages are kept open and free of debris, ice, and snow, and that surfaces are properly treated to reduce erosion, fugitive dust, and impacts to adjacent areas.
- h. A pipeline corridor containing a single steel gas pipeline and a single steel or poly pipe water pipeline is associated with this application and is being applied for at this time. The proposed pipeline corridor will leave the southwest side of the well site and traverse 22,384' west to the proposed WHB compressor suction pipeline proposed adjacent to the Wild Horse Ranch access road.
- i. The gas pipeline will be a 12" or less buried line and the water pipeline will be a 12" or less buried line within a 30' wide disturbed pipeline corridor. Construction of the pipeline corridor will temporarily utilize the 30' disturbed width for the road for a total disturbed width of 60' for the road and pipeline corridors. The use of the proposed well site and access roads will facilitate the staging of the pipeline corridor construction. A new buried pipeline corridor length of approximately 22,384' is associated with this well.
- j. XTO Energy, Inc. intends to bury the pipeline where possible and connect the pipeline together utilizing conventional welding technology.

5. Location and Type of Water Supply:

- a. No water supply pipelines will be laid for this well.
- b. No water well will be drilled for this well.
- c. Drilling water for this will be hauled on the road(s) shown in Attachment No. 3.
- d. Water will be hauled from one of the following sources:
  - o Water Permit # 43-10447, Section 33, T8S, R20E;
  - o Water Permit #43-2189, Section 33, T8S, R20E;
  - o Water Permit #49-2158, Section 33, T8S, R20E;
  - o Water Permit #49-2262, Section 33, T8S, R20E;
  - o Water Permit #49-1645, Section 5, T9S, R22E;
  - o Water Permit #43-9077, Section 32, T6S, R20E;
  - o Tribal Resolution 06-183, Section 22, T10S, R20E;

6. Source of Construction Material:

- a. The use of materials will conform to 43 CFR 3610.2-3.
- b. No construction materials will be removed from Ute Tribal or BLM lands.
- c. If any gravel is used, it will be obtained from a state approved gravel pit.



7. Methods of Handling Waste:

- a. All wastes associated with this application will be contained and disposed of utilizing approved facilities.
- b. Drill cuttings will be contained and buried on site.
- c. The reserve pit will be located outboard of the location and along the southeast side of the pad.
- d. The reserve pit will be constructed so as not to leak, break, or allow any discharge.
- e. The reserve pit will be lined with 16 mil minimum thickness plastic nylon reinforced liner material. The liner will overlay a felt liner pad only if rock is encountered during excavation. The pit liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash, scrap pipe, etc., that could puncture the liner will be disposed of in the pit. Pit walls will be sloped no greater than 2:1. A minimum 2-foot freeboard will be maintained in the pit at all times during the drilling and completion operation.
- f. The reserve pit has been located in cut material. Three sides of the reserve pit will be fenced before drilling starts. The fourth side will be fenced as soon as drilling is completed, and shall remain until the pit is dry. After the reserve pit has dried, all areas not needed for production will be rehabilitated.
- g. No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completion of the well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the drilling, testing, or completion of the well.
- h. Trash will be contained in a trash cage and hauled away to an approved disposal site as necessary but no later than at the completion of drilling operations. The contents of the trash container will be hauled off periodically to the approved Uintah County Landfill near Vernal, Utah.
- i. Produced fluids from the well other than water will be produced into a test tank until such time as construction of production facilities is completed. Any spills of oil, gas, salt water or other produced fluids will be cleaned up and removed.
- j. After initial clean-up, a 400 bbl tank will be installed to contain produced waste water. This water will be transported from the tank to an approved XTO Energy, Inc. disposal well for disposal.
- k. Produced water from the production well will be disposed of at the RBU 13-11F or RBU 16-19F disposal wells in accordance with Onshore Order #7.
- l. Any salts and/or chemicals, which are an integral part of the drilling system, will be disposed of in the same manner as the drilling fluid.
- m. Sanitary facilities will be on site at all times during operations. Sewage will be placed in a portable chemical toilet and the toilet replaced periodically utilizing a licensed contractor to transport by truck the portable chemical toilet so that its contents can be delivered to the Vernal Wastewater Treatment Facility in accordance with state and county regulations.

8. Ancillary Facilities:

- a. Garbage Containers and Portable Toilets are the only ancillary facilities proposed in this application.
- b. No camps, airstrips or staging areas are proposed with this application.

9. Well Site Layout: (See Exhibit B)

- a. The well will be properly identified in accordance with 43 CFR 3162.6.
- b. Access to the well pad will be from the southwest.
- c. The pad and road designs are consistent with BLM and Tribal specifications.
- d. A pre-construction meeting with responsible company representative, contractors, Ute Indian Tribe and the BLM will be conducted at the project site prior to commencement of surface-disturbing activities. The pad and road will be construction-staked prior to this meeting.
- e. The pad has been staked at its maximum size; however it will be constructed smaller if possible, depending upon rig availability. Should the layout change, this application will be amended and approved utilizing a sundry notice.
- f. All surface disturbing activities, will be supervised by a qualified, responsible company representative who is aware of the terms and conditions of the APD and specifications in the approved plans.
- g. All cut and fill slopes will be such that stability can be maintained for the life of the activity.
- h. Diversion ditches will be constructed as shown around the well site to prevent surface waters from entering the well site area.
- i. The site surface will be graded to drain away from the pit to avoid pit spillage during large storm events.
- j. The stockpiled topsoil (first 6 inches or maximum available) will be stored in a windrow on the uphill side of the location to prevent any possible contamination. All topsoil will be stockpiled for reclamation in such a way as to prevent soil loss and contamination.
- k. Pits will remain fenced until site cleanup.
- l. The blooie line will be located at least 100 feet from the well head.
- m. Water injection may be implemented if necessary to minimize the amount of fugitive dust.

10. Plans for Restoration of the Surface (Interim Reclamation and Final Reclamation):

- a. Site reclamation for a producing well will be accomplished for portions of the site not required for the continued operation of the well.
- b. Upon well completion, any hydrocarbons in the pit shall be removed in accordance with 43 CFR 3162.7-1. Once the reserve pit is dry, the plastic nylon reinforced liner shall be torn and perforated before backfilling of the reserve pit. The reserve pit and that portion of the location not needed for production facilities/operations will be re-contoured to the approximate natural contours.

- c. Following BLM published Best Management Practices the interim reclamation will be completed within 90 days of completion of the well to reestablish vegetation, reduce dust and erosion and compliment the visual resources of the area.
  - a. All equipment and debris will be removed from the area proposed for interim reclamation and the pit area will be backfilled and re-contoured.
  - b. The area outside of the rig anchors and other disturbed areas not needed for the operation of the well will be re-contoured to blend with the surrounding area and reseeded at 12 lbs /acre with the following native grass seeds:
    - o Crested Wheat Grass (4 lbs / acre)
    - o Needle and Thread Grass (4 lbs / acre)
    - o Rice Grass (4 lbs / acre)
  - c. Reclaimed areas receiving incidental disturbance during the life of the producing well will be re-contoured and reseeded as soon as practical.
- d. The Operator will control noxious weeds along access road use authorizations, pipeline route authorizations, well sites, or other applicable facilities by spraying or mechanical removal. A list of noxious weeds may be obtained from the Ute Indian Tribe or the appropriate County Extension Office. On Ute Indian Tribe administered land, it is required that a Pesticide Use Proposal be submitted and approved prior to the application of herbicides, pesticides or possibly hazardous chemicals.
- e. Prior to final abandonment of the site, all disturbed areas, including the access road, will be scarified and left with a rough surface. The site will then be seeded and/or planted as prescribed by the Ute Indian Tribe. The Ute Indian Tribe recommended seed mix will be detailed within their approval documents.

11. Surface and Mineral Ownership:

- a. Surface Ownership – Ute Indian Tribe under the management of the Energy & Minerals Department, P.O. Box 190, Fort Duchesne, Utah 84026; 435-725-4950
- b. Mineral Ownership – Federal under the management of the Bureau of Land Management - Vernal Field Office, 170 South 500 East, Vernal, Utah 84078; 435-781-4400.

12. Other Information:

a. Operators Contact Information:

Title	Name	Office Phone	Mobile Phone	e-mail
Company Rep.	Ken Secrest	435-722-4521	435-828-1450	Ken_Secrest@xtoenergy.com
Agent	Don Hamilton	435-719-2018	435-719-2018	starpoinet@etv.net

- b. AIA Archaeological has conducted a Class III archeological survey. A copy of the report is attached and has also been submitted under separate cover to the appropriate agencies by AIA Archaeological.
- c. Alden Hamblin has conducted a paleontological survey. A copy of the report is attached and has also been submitted under separate cover to the appropriate agencies by Alden Hamblin.
- d. Our understanding of the results of the onsite inspection are:

- a. No drainage crossings that require additional State or Federal approval are being crossed.
- b. No Threatened and Endangered flora and fauna species were found during the onsite inspection.
- c. The known arch site along the existing road is being avoided through a minor road re-route approved by the Ute Indian Tribe and the consulting archaeologist.

**DOMINION EXPLR. & PROD., INC.**  
**WHB #11-5H & #15-5H**  
**SECTION 5, T11S, R20E, S.L.B.&M.**

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88; EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 9.1 MILES ON THE SEEP RIDGE ROAD TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN RIGHT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 2.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE WEST; TURN RIGHT AND PROCEED IN A WESTERLY, THEN SOUTHWESTERLY DIRECTION APPROXIMATELY 0.5 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTH; TURN RIGHT AND PROCEED IN A NORTHERLY, THEN SOUTHWESTERLY DIRECTION APPROXIMATELY 2.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST; PROCEED IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 5.4 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN LEFT AND PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 2.5 MILES TO THE BEGINNING OF THE PROPOSED ACCESS TO THE NORTHEAST; FOLLOW ROAD FLAGS IN A NORTHEASTERLY DIRECTION APPROXIMATELY 280' TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 54.1 MILES.

**UINTAH ENGINEERING & LAND SURVEYING**  
85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1017

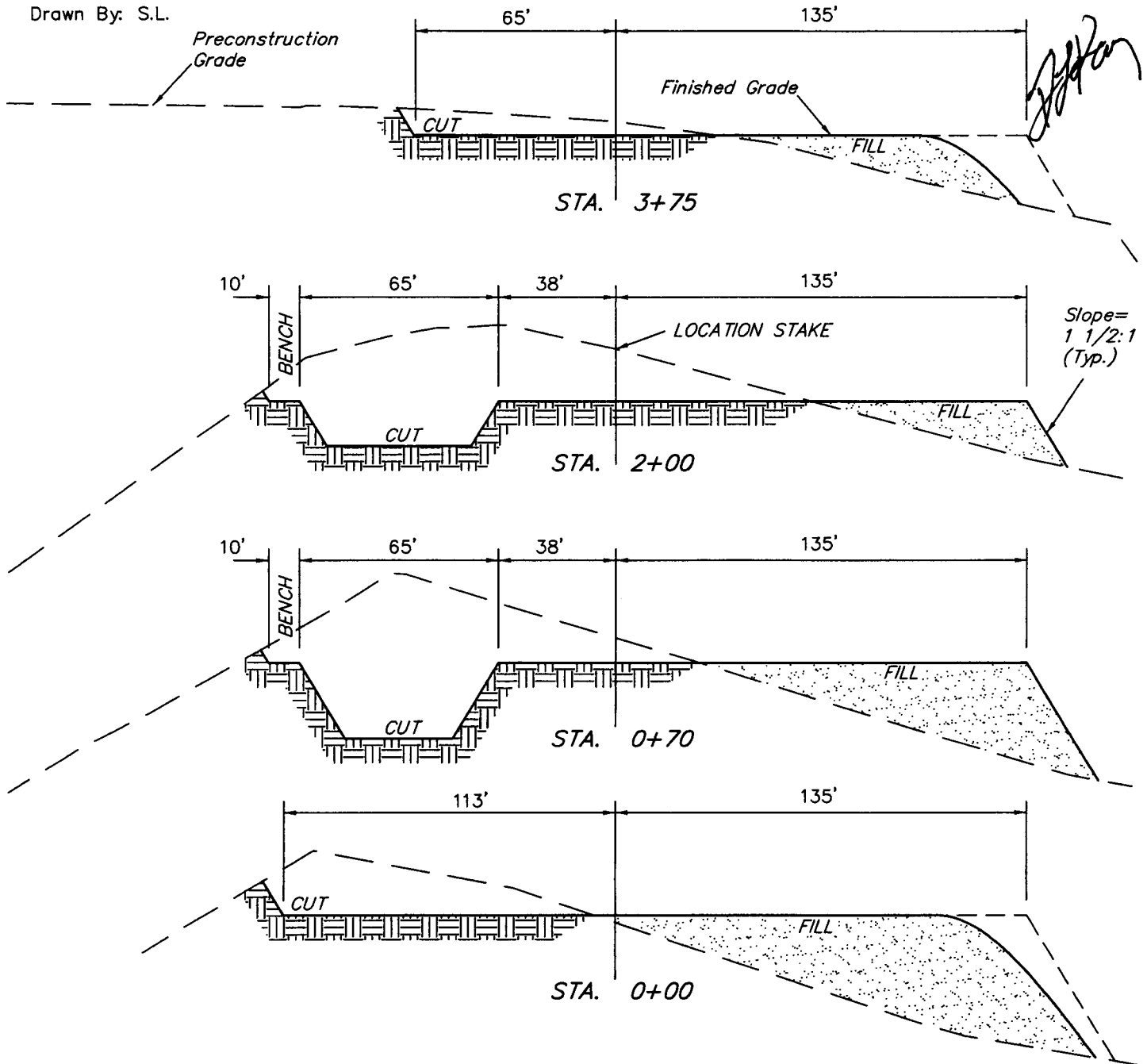
# DOMINION EXPLR. & PROD., INC.

## TYPICAL CROSS SECTIONS FOR

WHB #11-5H & #15-5H  
SECTION 5, T11S, R20E, S.L.B.&M.  
SE 1/4 SW 1/4

1" = 20'  
X-Section  
Scale  
1" = 50'

DATE: 04-09-07  
Drawn By: S.L.



### APPROXIMATE YARDAGES

CUT  
(12") Topsoil Stripping = 3,840 Cu. Yds.  
Remaining Location = 12,560 Cu. Yds.  
  
TOTAL CUT = 16,400 CU.YDS.  
  
FILL = 10,820 CU.YDS.

\* NOTE:  
FILL QUANTITY INCLUDES  
5% FOR COMPACTION

EXCESS MATERIAL = 5,580 Cu. Yds.  
Topsoil & Pit Backfill = 5,580 Cu. Yds.  
(1/2 Pit Vol.)  
  
EXCESS UNBALANCE = 0 Cu. Yds.  
(After Interim Rehabilitation)

UINTAH ENGINEERING & LAND SURVEYING  
85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1017

# DOMINION EXPLR. & PROD., INC.

WHB #11-5H & #15-5H  
LOCATED IN UINTAH COUNTY, UTAH  
SECTION 5, T11S, R19E, S.L.B.&M.

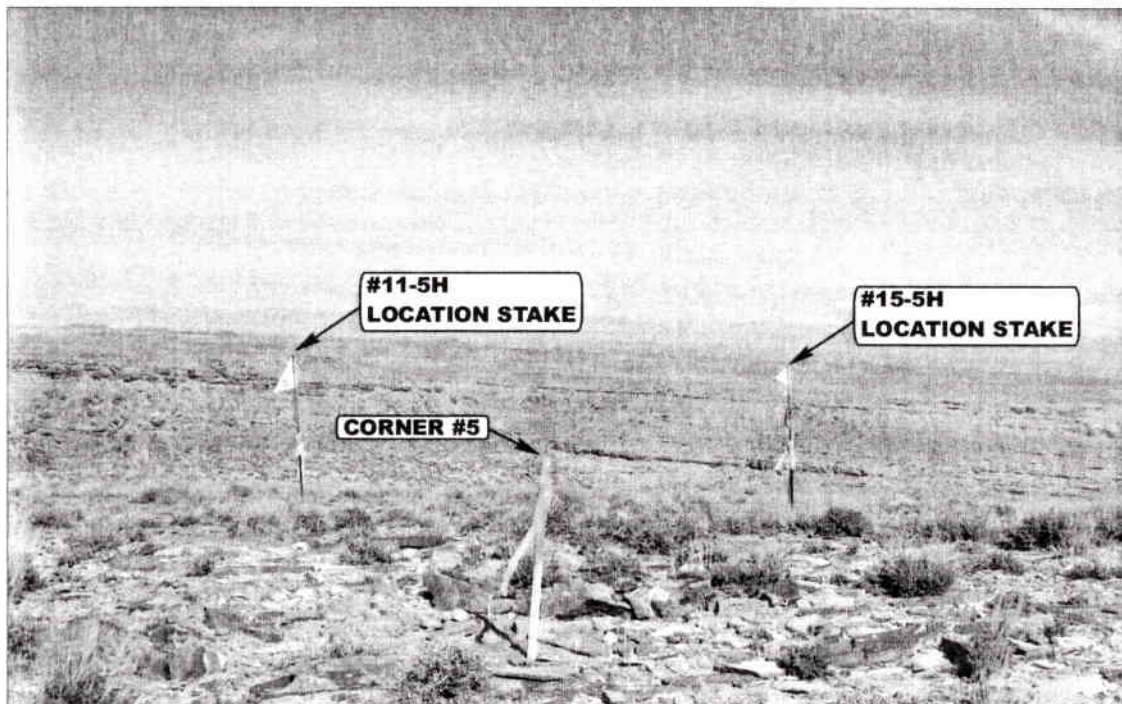


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: NORTHWESTERLY

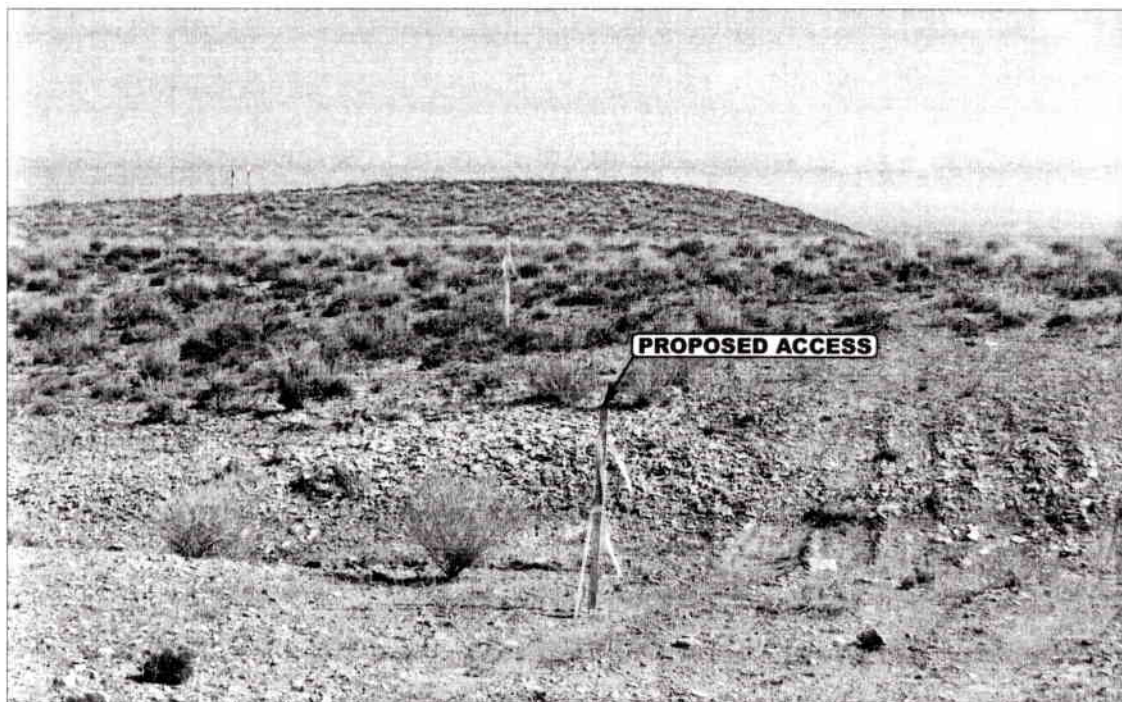


PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

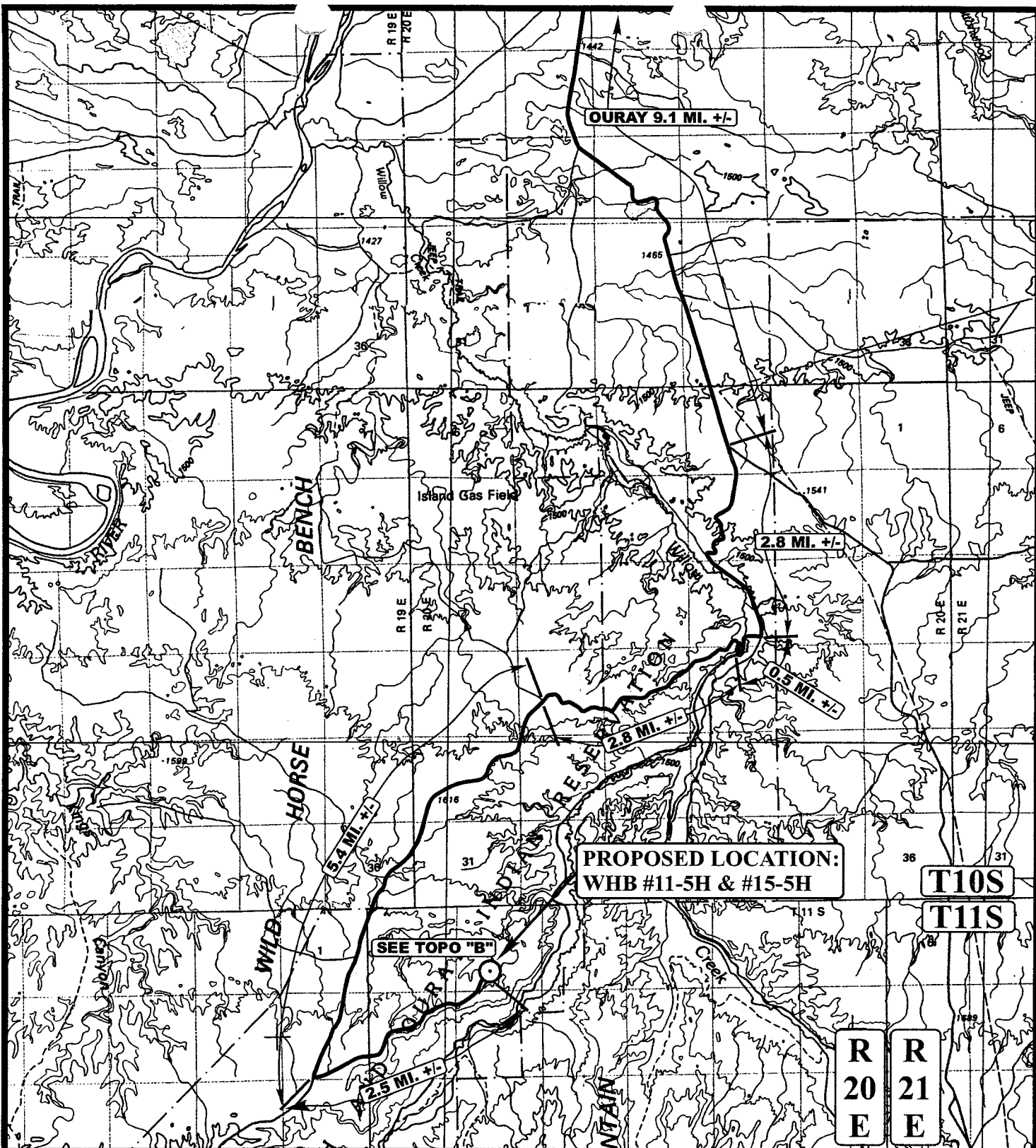
CAMERA ANGLE: NORTHEASTERLY



Uintah Engineering & Land Surveying  
85 South 200 East Vernal, Utah 84078  
435-789-1017 uels@uelsinc.com

LOCATION PHOTOS		04	03	07	PHOTO
		MONTH	DAY	YEAR	
TAKEN BY: J.R.	DRAWN BY: L.K.	REVISED: 00-00-00			





# LEGEND:

○ PROPOSED LOCATION

# DOMINION EXPLR. & PROD., INC.

WHB #11-5H & #15-5H  
SECTION 5, T11S, R20E, S.L.B.&M.  
SE 1/4 SW 1/4



Uintah Engineering & Land Surveying  
85 South 200 East Vernal, Utah 84078  
(435) 789-1017 \* FAX (435) 789-1813

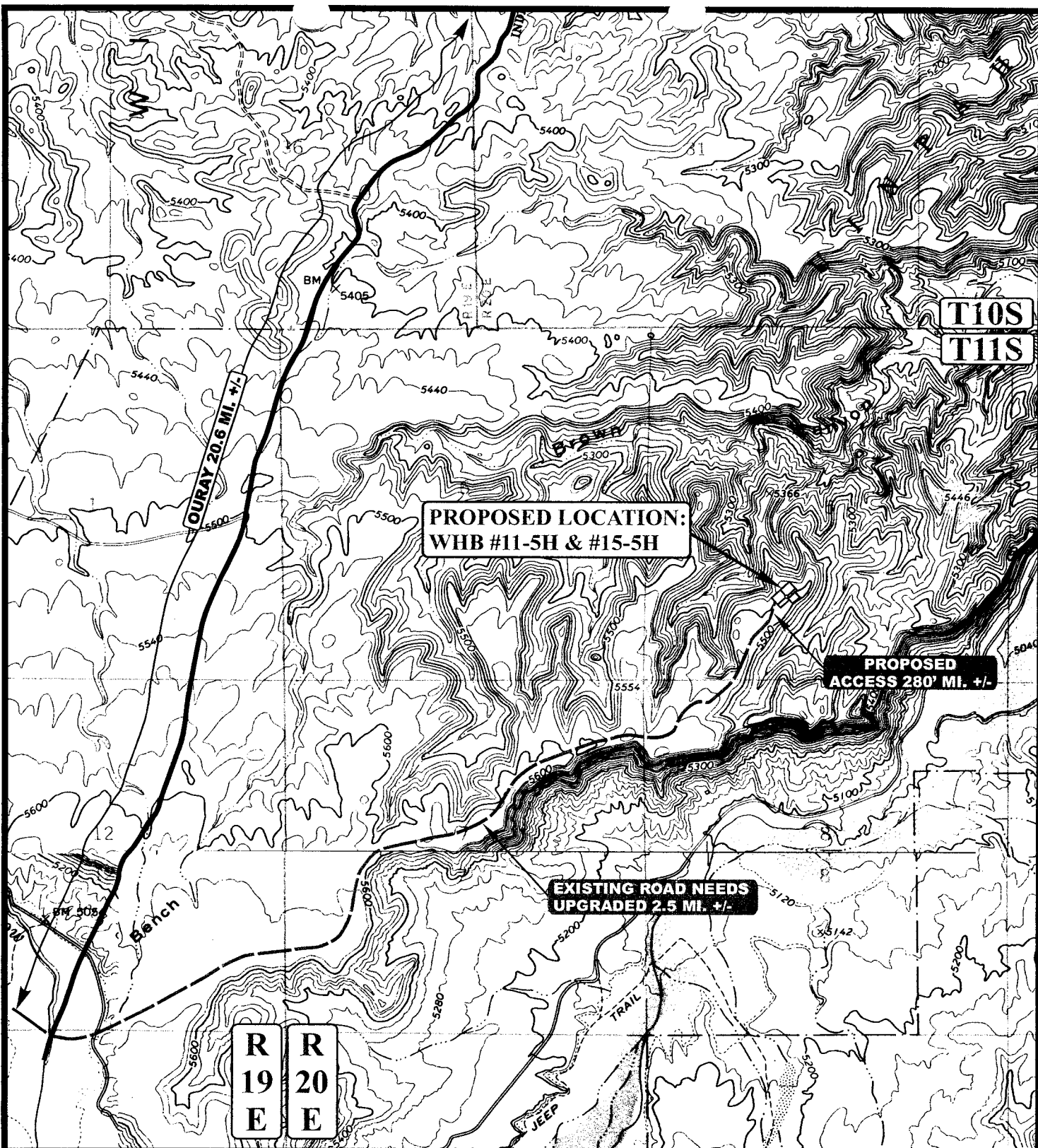


TOPOGRAPHIC  
MAP

04 03 07  
MONTH DAY YEAR

SCALE: 1:100,000 DRAWN BY: L.K. REVISED: 00-00-00





# LEGEND:

EXISTING ROAD  
 PROPOSED ACCESS ROAD

## DOMINION EXPLR. & PROD., INC.

WHB #11-5H & #15-5H  
 SECTION 5, T11S, R20E, S.L.B.&M.  
 SE 1/4 SW 1/4

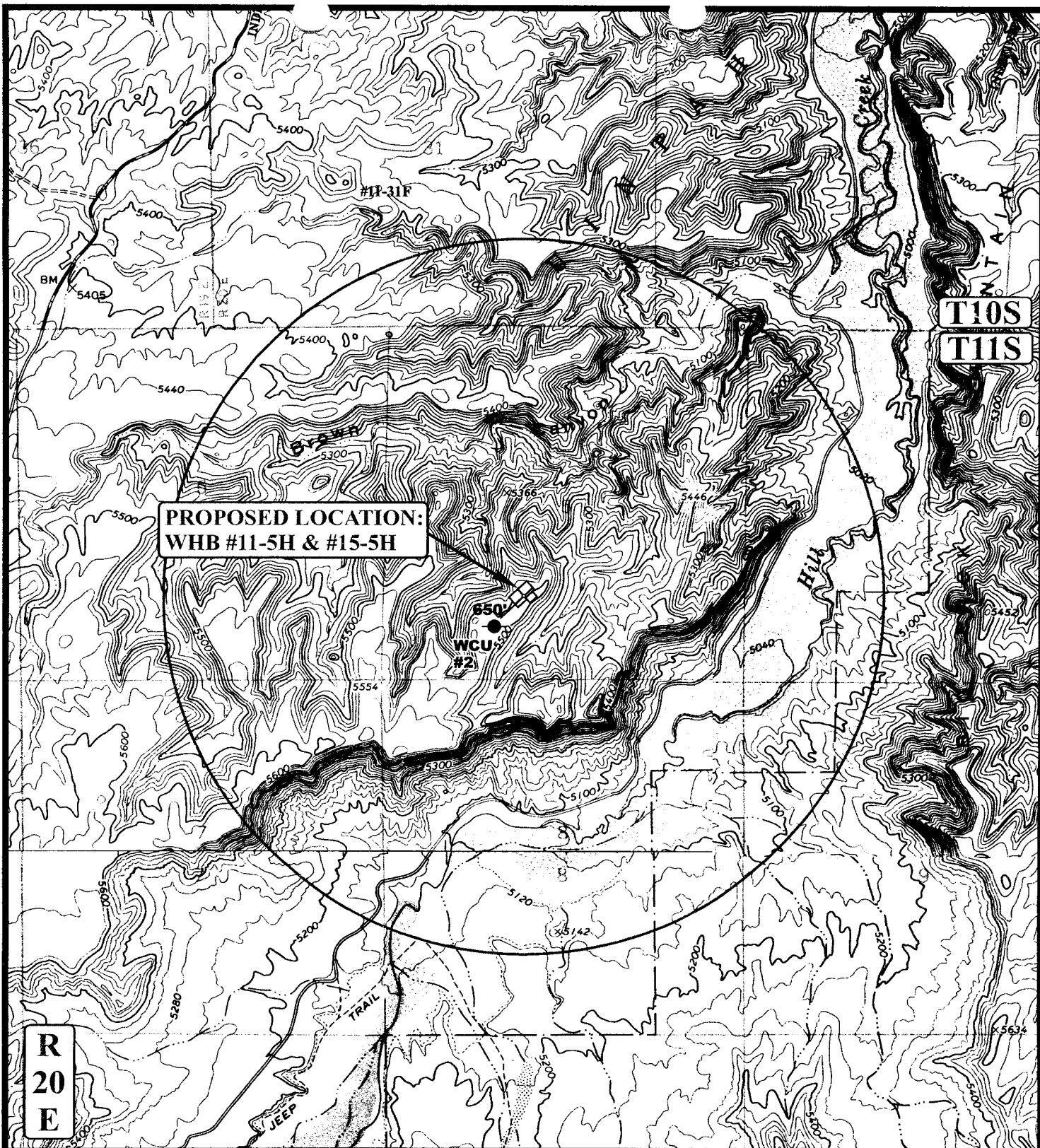


Uintah Engineering & Land Surveying  
 85 South 200 East Vernal, Utah 84078  
 (435) 789-1017 \* FAX (435) 789-1813



TOPOGRAPHIC MAP  
 SCALE: 1" = 2000' DRAWN BY: L.K. REVISED: 00-00-00  
 MONTH DAY YEAR  
 04 03 07





# **LEGEND:**

- Ø DISPOSAL WELLS
- PRODUCING WELLS
- SHUT IN WELLS
- Ø WATER WELLS
- ABANDONED WELLS
- TEMPORARILY ABANDONED



**Uintah Engineering & Land Surveying**  
 85 South 200 East Vernal, Utah 84078  
 (435) 789-1017 \* FAX (435) 789-1813



## **DOMINION EXPLR. & PROD., INC.**

**WHB #11-5H & #15-5H**  
**SECTION 5, T11S, R20E, S.L.B.&M.**  
**SE 1/4 SW 1/4**

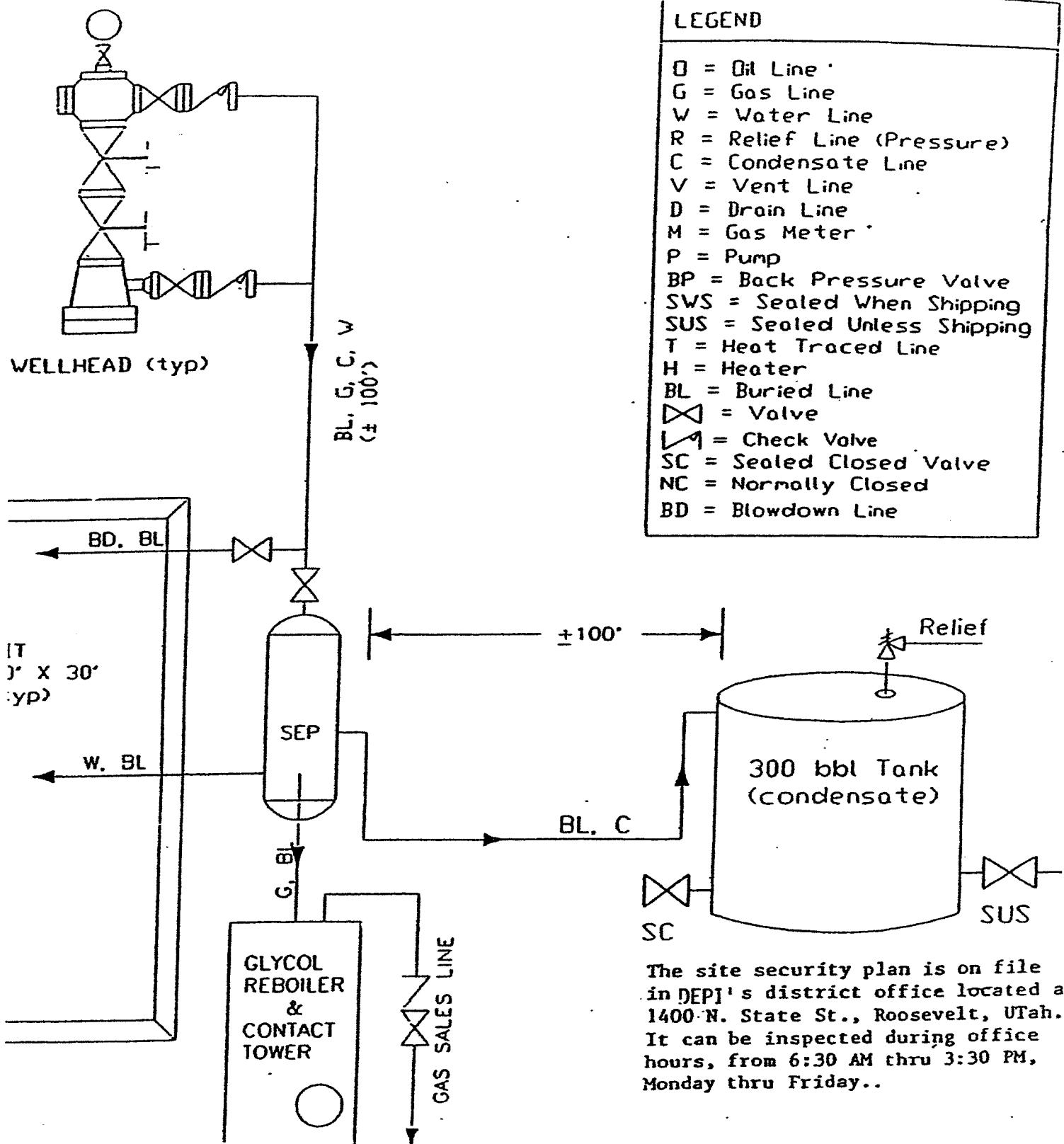
**TOPOGRAPHIC  
MAP**

**04 03 07**  
 MONTH DAY YEAR

**SCALE: 1" = 2000'** **DRAWN BY: L.K.** **REVISED: 00-00-00**



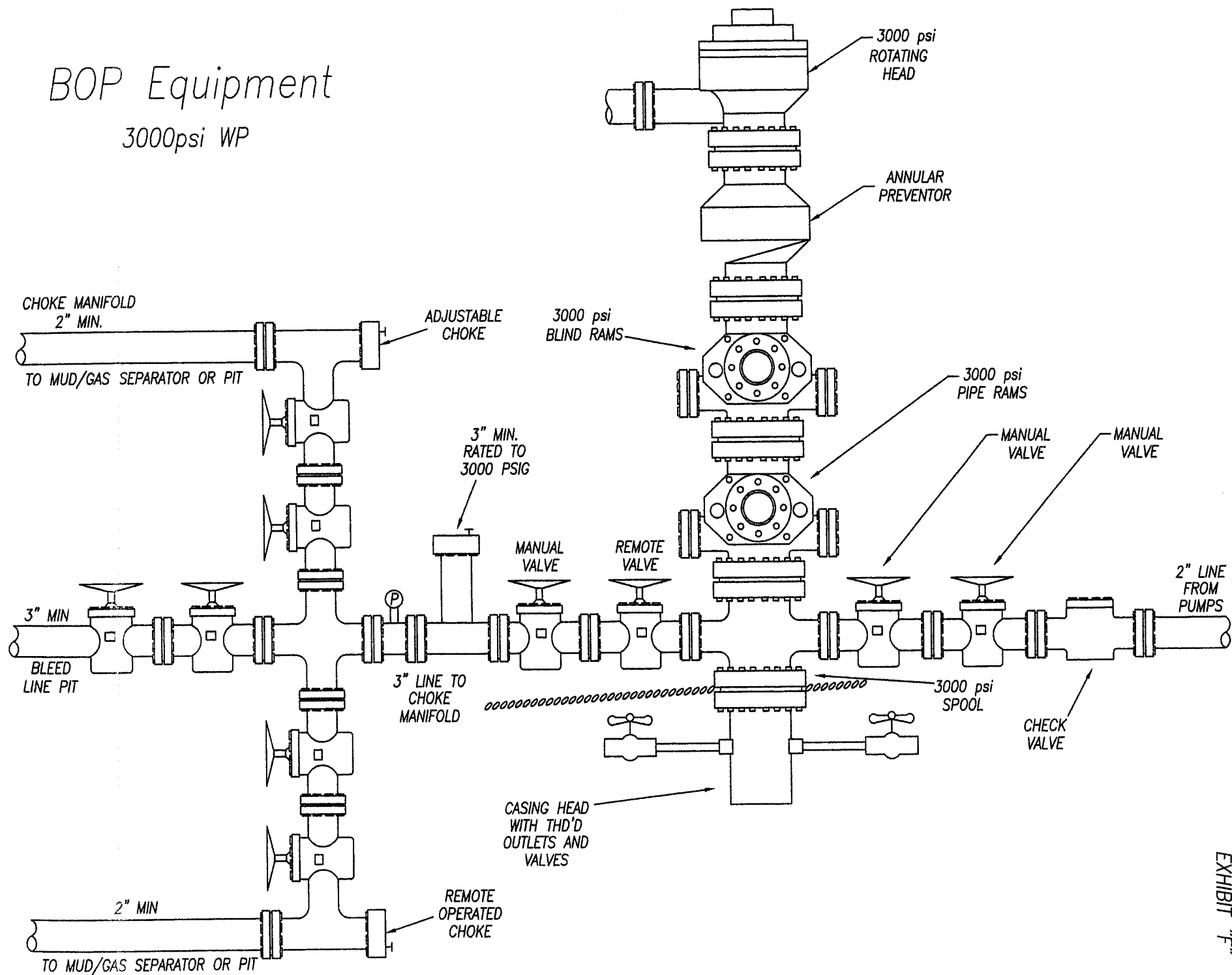




The site security plan is on file in DEPI's district office located at 1400 N. State St., Roosevelt, Utah. It can be inspected during office hours, from 6:30 AM thru 3:30 PM, Monday thru Friday..

# BOP Equipment

3000psi WP



CLASS III CULTURAL RESOURCE INVENTORY OF DOMINION'S PROPOSED WILD  
HORSE BENCH LOCATION #11-5H and #15-5H, ASSOCIATED ACCESS ROAD AND  
PIPELINE

UINTAH COUNTY, UTAH

Author:

Shina duVall, Cultural Resource Specialist

Prepared for:

Dominion Exploration & Production, Inc.  
1400 North State Street; PO Box 1360  
Roosevelt, UT 84066

Prepared by:

Buys & Associates, Inc. Environmental Consultants  
300 E. Mineral Avenue, Suite 10  
Littleton, CO 80122-2655

Principal Investigator: Jonathan D. Kent, Ph.D

Buys & Associates, Inc. Report No.: U-07-322-42-0006  
State of Utah Project No.: U-07-UY-0542i

June 4, 2007

Utah State Archaeological Survey Permit No.: 85  
United States Department of the Interior Federal Land Policy and Management Act  
(FLPMA) Permit No.: *Pending*



## CONFIDENTIALITY NOTICE:

Section 304 of the National Historic Preservation Act (16 U.S.C. 470w-3[a]) and Section 9 of the Archaeological Resources Protection Act of 1979 (16 U.S.C. 470hh) establish regulations regarding the confidentiality of information concerning the nature and location of archaeological resources. Therein is stated that information concerning the nature and location of any archaeological resource may not be made available to the public unless the Federal land manager concerned determines that such disclosure would not create a risk of harm to such resources or to the site at which such resources are located, or impede the use of a traditional religious site by practitioners.

As such, to the extent permitted by law, all information on archaeological resources and their locations gathered and presented with regard to the proposed project will be treated as confidential. All parties associated with the proposed project will ensure (1) that all information regarding specific site locations is kept confidential except for disclosures required by law or necessary to carry-out protection of sites; (2) that specific site locations are not included in any document made available to the general public; and (3) this information shall not be utilized by the requestor to destroy, excavate, or vandalize resources.



## ABSTRACT

A Class III cultural resource inventory was conducted by Buys & Associates, Inc. in May 2007 for Dominion Exploration & Production, Inc.'s proposed locations #11-5H and #15-5H as well as 4.20 miles of associated access road and pipeline. The Project Area is located east of the Green River, just southwest of the confluence of Hill Creek, Willow Creek, and Pariette Draw in the general area of Wild Horse Bench and Brown Canyon in the Uinta Basin, Uintah County, Utah. The legal location of the Project Area is Section 5, 7, and 8, Township 11S, Range 20E; and Sections 1, 12, and 13, Township 11S, Range 19E. The total area of survey included 58.46 acres on land administered by the Ute Indian Tribe on the Uintah and Ouray Indian Reservation.

This Class III inventory resulted in the identification of six previous cultural resource inventories that were conducted within 1 mile of the Project Area. These previous inventories resulted in the identification of 27 archaeological sites. Only two of these previously documented sites (**42Un4566** and **42Un5237**) are located in the present area of potential effect. Of the two previously documented sites, **42Un5237** was originally recorded as eligible for listing on the National Register of Historic Places. Ten Isolated Finds were documented during the current inventory. No new archaeological sites were recorded as a result of this inventory.

It is recommended that Site **42Un5237** identified during this inventory be avoided by the proposed undertaking. Adherence to the recommended avoidance/mitigation measures will result in a finding of no effects to any historic properties as a result of the undertaking. Therefore, a determination of "no historic properties affected" is proposed for the project pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800).

## TABLE OF CONTENTS

ABSTRACT.....	ii
1. INTRODUCTION.....	1
2. ENVIRONMENT.....	5
3. CULTURE HISTORY .....	5
4. CLASS I INVENTORY.....	8
5. FIELD SURVEY .....	9
6. SUMMARY OF THE KNOWN CULTURAL RESOURCES .....	10
7. EVALUATION AND RECOMMENDATIONS .....	18
8. REFERENCES.....	19

## LIST OF FIGURES

Figure 1.1.....	3
Figure 6.1.....	12
Figure 6.2.....	13
Figure 6.3.....	13
Figure 6.4.....	14
Figure 6.5.....	14
Figure 6.6.....	15
Figure 6.7.....	15
Figure 6.8.....	16
Figure 6.9.....	16
Figure 6.10.....	17
Figure 6.11.....	17

## LIST OF TABLES

Table 4.1.....	11
----------------	----

# 1. INTRODUCTION

Buys & Associates, Inc. (B&A) conducted this Class III cultural resource inventory of Dominion Exploration & Production, Inc.'s (Dominion) proposed well locations #11-5 and #15-5, as well as 4.20 miles of associated access road and pipeline. The Project Area is located east of the Green River, just southwest of the confluence of Hill Creek, Willow Creek, and Pariette Draw in the general area of Wild Horse Bench and Brown Canyon in the Uinta Basin, Uintah County, Utah. The legal location of the Project Area is Section 5, 7, and 8, Township 11S, Range 20E; and Section 1, 12, and 13, Township 11S, Range 19E (**Figure 1.1**). The total area of survey included 58.46 acres on land administered by the Ute Indian Tribe on the Uintah and Ouray Indian Reservation.

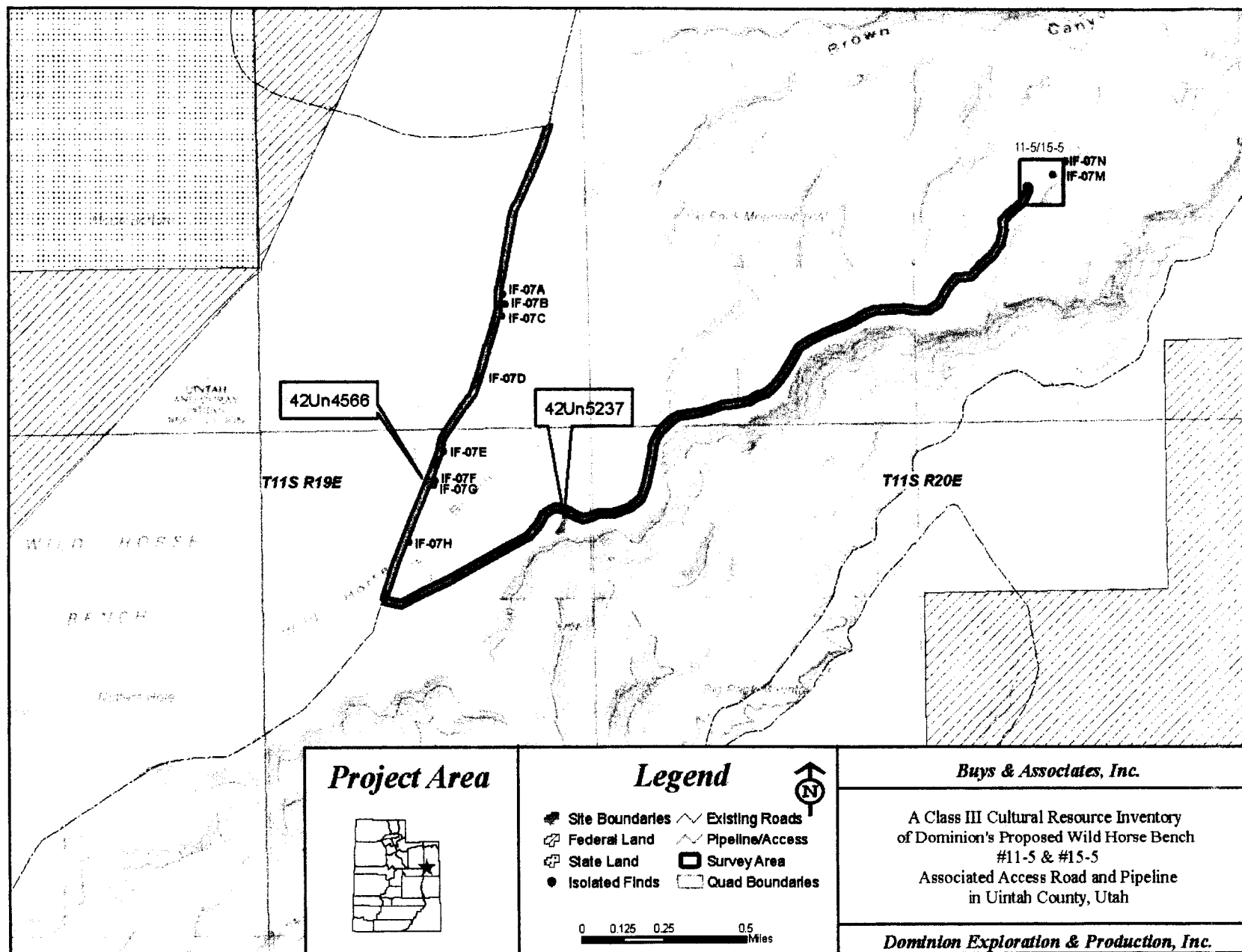
This cultural resource inventory was conducted in compliance with Federal and State legislation including Section 106 of the National Historic Preservation Act of 1966 (as amended) (NHPA), the National Environmental Policy Act of 1969, the Archaeological and Historic Preservation Act of 1974, the Archaeological Resources Protection Act of 1979, and the American Indian Religious Freedom Act of 1978. The NHPA sets forth national policy and procedures regarding "historic properties"—that is, regions, sites, buildings, structures, and objects included in or eligible for the National Register of Historic Places (NRHP). Section 106 of the NHPA requires Federal agencies to consider the effects of their undertakings on such properties, following regulations issued by the Advisory Council on Historic Preservation (ACHP) (36 CFR 800).

Criteria for evaluating the significance of resources for listing on the NRHP are outlined in 36 CFR 800.10, "National Register Criteria." The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and,

- a) That are associated with events that have made a significant contribution to the broad patterns of our history.
- b) That are associated with the lives of persons significant in our past.
- c) That embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction, and,
- d) That have yielded, or may be likely to yield, information important in prehistory or history.

This Class III cultural resource inventory was conducted by Shina duVall and Jenny Lange of B&A during the week of May 7-11, 2007. The archaeologists were accompanied in the field by personnel from the Ute Tribe Energy and Minerals Department. The records search was conducted by Marty Thomas at the Division of State History, Salt Lake City, Utah on April 28, 2007. Jonathan D. Kent, Ph.D served as the principal investigator. All field notes and photographs are on file at B&A's office in Littleton, Colorado under project number U-07-322-42-0006.

This Class III inventory resulted in the identification of six previous cultural resource inventories that were conducted within 1 mile of the Project Area. These previous inventories resulted in the identification of 27 archaeological sites. Only two of these previously documented sites (**42Un4566** and **42Un5237**) are located in the present area of potential effect. Of the two previously documented sites, **42Un5237** was originally recorded as eligible for listing on the National Register of Historic Places. Ten Isolated Finds (IFs) were documented during the current inventory. No new archaeological sites were recorded as a result of this inventory.



**Figure 1.1** Location of Dominion's Proposed Wild Horse Bench #11-5H and #15-5H, Associated Access Road, and Pipeline Showing Re-Route to Avoid 42Un5237

## **2. ENVIRONMENT**

The Uinta Basin and Mountains are located in the northeast corner of the state of Utah and are part of a larger physiographic area known as the Colorado Plateau. The Project Area is located east of the Green River, just west of the confluence of Hill Creek, Willow Creek, and Pariette Draw in the general area of Wild Horse Bench and Brown Canyon in the Uinta Basin, Uintah County, Utah. The elevation of the Project Area ranges from approximately 5,300 to 5,600 feet. The topography consists of flat rocky ridges dissected by deep narrow canyons. It is characterized by raised, sloping benches or rides, incised ephemeral draws, and washes. Soils in the Project Area are shallow and consist of clay loams. Colluvium with some bedrock sandstone is also present. Drainage in the area is to the north with the Alger Pass drainages associated with Kings Canyon and the Willow Creek Unit drainages connected to Brown Canyon. Vegetation in the area includes Utah juniper, pinyon pine, black sagebrush, shadscale, galleta grass, Gardner's saltbush, prickly phlox, horsebrush, bud sage, American kochia, and cheat grass, with either pinyon and juniper trees and sagebrush as the dominant vegetation type. The Project Area and the Green River to the north and west provide habitat for numerous species of birds, mammals, reptiles, amphibians, fish, and invertebrates. Modern disturbances include oil and gas facilities and various roads.

## **3. CULTURE HISTORY**

The prehistory of the Uinta Basin is complex and poorly understood because of its location at the intersection of the Great Basin, Colorado Plateau, and Northern Plains cultures. The cultural trajectory of change in the Uinta Basin has been generally categorized into five cultural-chronological periods, defined by Jennings (1986). These are the Paleoindian, Archaic, Formative (Fremont), Post Formative (Protohistoric), and Contact periods. The earliest evidence of a human presence in the area (during the Paleoindian period) dates back to approximately 12,000 years before present (B.P.) during the terminal Pleistocene. This period is characterized by specialized hunting of big game animals, including the now-extinct species of mammoth and bison. Evidence for the Paleoindian presence in the Uinta Basin region comes from a few Clovis and Folsom projectile points and some Plano Complex lanceolate projectile points (Hauck 1998). However, these sparse isolated finds define the extent of the Paleoindian presence in the area, as few sites associated with the period have been sufficiently documented (Spangler 1995:332).

The Archaic stage, which dates from approximately 8000 B.P. to 1500 B.P., is better represented in the archaeological record of the area. This period is further subdivided into the Early Archaic phase, which dates from approximately 8000 to 5000 B.P.; the Middle Archaic, which dates to approximately 5000 B.P. to 2500 B.P.; and the Late Archaic, which dates from approximately 2500 B.P. to 1450 B.P. In the Uinta Basin, there are few artifacts or sites dating to the Early Archaic, but the Middle and Late Archaic phases are better represented in the archaeological record (Holmer 1986). In comparison to the Paleoindian period, the Archaic period is characterized by increased foraging subsistence strategy. Archaic peoples exploited a wide variety of floral resources, and began hunting an array of smaller to medium-sized game animals such as cottontail rabbits, muskrats, birds, beavers, prairie dogs, deer, antelope, mule, and

bighorn sheep. Archaic period cultural material includes an elaboration and expansion of the lithic toolkit with the introduction of new types of projectile points and the atlatl. Site types associated with the Archaic period include rock shelters, open-air campsites, plant gathering areas, and processing sites (Spangler 1995). The archaeological record indicates that the population in the Uinta Basin increased during the Middle Archaic period and continued to increase into the Late Archaic period. The first evidence of the construction of formal architectural features, such as semi-subterranean residential structures, and the beginnings of maize horticulture begin during the Late Archaic period.

The Formative period (Fremont) dates to approximately 2500 B.P. to annos domini (A.D.) 1400. During this period, the populations living in the Uinta Basin became more dependent on cultivated crops including corn, beans, and squash (Marwitt 1970). The Formative period is also marked by increased sedentism and the introduction of more elaborate and formal architectural features, such as shallow pithouse structures. Larger groups began occupying more permanent villages and some habitation sites appear to be positioned in strategic locations, such as atop buttes (Shields 1970). In addition, the Formative period, known in this area as the Uinta Fremont period, witnessed the introduction of additional specialized technologies such as ceramics and the bow and arrow. The archaeology of Uinta Fremont period architectural features has revealed evidence of postholes, hearths, two-handed wide-mouth vessels, and metates (Shields 1970).

The archaeological record indicates that the Formative period overlaps with the Post-Formative (Protohistoric) period as evidence suggests the arrival of Numic peoples in the area before the disappearance of Formative-period peoples (Reed 1994). Evidence of Numic (Ute and Shoshonean) artifacts and sites appears around approximately A.D. 1100. This transition from the Formative to the Post-Formative (Protohistoric) periods is characterized by a return to subsistence and settlement patterns that resembled the Archaic period trends, including more nomadic and semi-sedentary lifeways, and increased hunting and gathering. The exact nature, timing, and reasons for this transition and the apparent replacement of the rich and extensive Fremont culture and subsequent return to a more nomadic, hunting and gathering lifeway is unknown. Floral and faunal resources exploited by Numic-speaking peoples appear to have included goosefoot, grass seeds, pinyon nuts, juniper berries, squawbush berries and leaves, hackberry seeds, saltbush seeds, knotweed, chokecherry, chickweed, various small game, and deer, elk, pronghorn, and bison (Reed 1994:191). The habitation features of the Numic-speaking peoples consist primarily of wickiups, which are frame huts covered with matting made from bark or brush. It appears that the seasonal movement of small groups during this period was necessary to utilize these various resources. Cultural material in the archaeological record that is associated with Numic-speaking peoples include lithic stone tool scatters, brown ware pottery, "Shoshonean knives" (Janetski 1994), and rock art.

Euro-American activity in the Uinta Basin began with an initial interest in trapping and mineral and petroleum development and is generally defined by periods of Exploration, Trapping and Trading (1776-1852); Early Settlement (1853-1861); Reservation (1862-1868); Secondary Settlement and Early Irrigation (1869-1885); Mineral Development (1886-1904); Land Rush and Water Development (1905-1927); Drought, Depression, and World War II (1928-1945); and Post-War (1946-present).

The Dominguez and Escalante expedition of 1776 marks the beginning of the historic period in this area. In his diary, Escalante called the basin "a fine plain abounding in pasturage and fertile, arable land, provided it were irrigated." These explorers opened the basin to Spanish, Mexican, American, and British fur-trappers, traders, and settlers. Over the next 100 years, early trappers, Mormon settlers, surveyors, and military expeditions passed through or settled in the area. Historic resource exploitation in this area includes mining, logging, and oil and gas extraction. The early historic periods were often marked by conflict between the original inhabitants of the region and Euro-American groups.

Between the late 1820s and the 1840s, the basin and mountains were visited by such prominent historical figures as William H. Ashley, Etienne Provost, Antoine Robidoux, and Kit Carson. At least two semi-permanent trading posts were established in the basin. These included Fort Robidoux (Fort Uintah or Winty) and Fort Kit Carson. Furthermore, several expeditions visited the area, including the Captain John C. Fremont expedition during the 1840s, and that of Major John Wesley Powell who floated the Green River in 1869 and 1871. The area was not initially identified as an area to be settled by Mormon leaders. In the early 1860s, Brigham Young sent a small expedition to the area to determine its suitability for settlement, but the expedition reported that "all that section of country lying between the Wasatch Mountains and the eastern boundary of the territory, and south of Green River country, was one vast contiguity of waste and measurably valueless...excepting for nomadic purposes, hunting grounds for Indians and to hold the world together."

The Uintah Reservation was established in 1861. Several Ute groups, including the Uinta-ats (Tavaputs), PahVant, Tumpawanach, Cumumba, and Sheberetch formed the Uintah Band during the late 1860s to early 1870 (Burton 1996). The Uintah Reservation was established to include Utes who had previously lived in central Utah and Ute groups from Colorado, specifically the White River Utes who had participated in the Meeker Massacre of September 29, 1879, were added to the Utah reservation in 1882 (Burton 1996; Callaway, Janetski, and Stewart 1986). The establishment of the reservation and subsequent inclusion of Ute groups from Colorado required that the Utes living in central Utah and the White River Utes of Colorado give up their residence there, and move to the Uintah Reservation, which is located in the northeast portion of the state of Utah. In addition, the Ouray Reservation, which bordered the southern boundary of the Uintah Reservation, was established during this time. This reservation was set up to include a band of Uncompahgre Utes. The Utes that were forced to move into these reservations were forced to sell their lands, and in many cases were not compensated for any resulting loss of land or independence. Furthermore, their relocation, residence, and containment on the two reservations was enforced militarily by the infantry stationed at the Department of War at Fort Thornburgh, which was established in 1881 (Burton 1996). Originally, the Uintah-Ouray Reservation encompassed over 3.5 million acres. However today, the Uintah Utes, White River Utes, and Uncompahgre Utes occupy only a small fraction of their former reservation lands. Between 1890 and 1933, over 500,000 acres of the Uintah-Ouray Reservation were taken for homesteading, and in 1906, over 900,000 additional acres were taken from the reservation and added to the National Forests (Clemmer 1986).

Thomas Smart was one of the first white settlers to inhabit the area east of Ouray in 1878. This was followed by additional settlement in the area of the White River in the late 1870s to early 1880s. In 1888, gilsonite and other asphaltum minerals were



discovered in various parts of the basin, which included eastern portions of the Uintah-Ouray Reservation. Miners convinced the Federal government to withdraw 7,000 acres from the reservation so that they could legally proceed with gilsonite mining activities. This area was called "the Strip." Between the late 1880s and early 1900s, the Dawes Act of 1887 and other mining and development campaigns succeeded in opening the Uinta Basin Indian Reservations, including the Uintah, the Ouray, and the Uncompahgre, to homesteading, development, and mining activities. The Mormon presence and increased settlement in the area grew after Thomas Smart's brother, William H. Smart, organized several expeditions into the Ouray Valley and the newly opened Ute Reservation. William H. Smart also became the president of the Wasatch Latter Day Saints (LDS) State in 1901 (Burton 1998). Several LDS families relocated to this area following Smart's initial exploration.

Early settlers in the region depended on livestock as the primary industry. Ranching and livestock make up an important part of the history of the Uinta Basin. Cattle were brought in from Brown's Park in Texas and other eastern areas since the early 1850s, and they were brought up to the Green River and surrounding mountain areas. The area offered an abundance of grass and water appropriate for livestock management. In 1912, the Uintah Cattle and Horse Growers Association was established. This group served to organize and issue brands to ranchers and to curtail rampant cattle rustling, which was becoming a significant problem as existing ranches grew in size and new ranches were established in the area (Burton 1996). Following the development of the cattle ranching industry, the sheep industry and the production of wool became an important industry in the Uinta Basin and its introduction coincided and possibly played a part in the waning of the cattle ranching industry. Sheep were desirable because of their heartiness and ability to survive the difficult basin winters better than cattle. Robert Bodily introduced the region to sheep in 1879 when he introduced a herd of 60. Following this introduction, the number of sheep being ranched in the region grew to approximately 50,000 head by the mid 1890s. Large-scale shearing corrals were built by C.S. Carter, and later by the Uintah Railway Company, and in 1899, the Uinta Basin sheep ranching industry was shipping 500,000 pounds of wool out of the area. The enormous growth of the wool industry in the region resulted in the passing of the Taylor Grazing Act in 1934, which designated certain areas as "districts" to stockmen, and required permits for livestock grazing. This act and acts like it led in part to the development of the Bureau of Land Management in 1946 (Burton 1996).

Uintah County is recognized for its various natural resources. These include coal, copper, iron, asphalt, shale, and as aforementioned, gilsonite. Commercial oil production began in 1948, but was not fully exploited until the 1970s, when the price of crude oil increased. The region has since experienced a boom and bust economic climate that is highly dependent on the price of and demand for oil and gas. Most recently the economic stability of the Uinta Basin is increasingly dependent on world energy prices and demand.

#### **4. CLASS I INVENTORY**

A file search for previous projects and documented cultural resources was conducted at the Division of State History – Utah State Historic Preservation Office (SHPO) on April 28, 2007. The purpose of the file search was to identify the previous cultural resource inventories conducted within the Project Area and the number, type, and eligibility

recommendations made for all of the archaeological sites previously documented. The NRHP National Register Information System (NRIS) online database was also consulted to determine if there are any NRHP-listed sites within the Project Area.

The results of the Class I inventory indicated that six cultural resource inventories had been conducted within 1 mile of the Project Area. These previous inventories resulted in the identification of 27 archaeological sites. Only two of these previously documented sites (**42Un4566** and **42Un5237**) are located in the present area of potential effect. The inventories and their findings are summarized in **Table 4.1**.

**Table 4.1 Previous Cultural Resource Inventories Conducted in the Vicinity of the Project Area and Applicable Findings**

<b>Project No.</b>	<b>Company Name</b>	<b>Project Name</b>	<b>Findings</b>
U-81-PA-0664b	Powers Elevation	Cultural Resource Management Report Kings Canyon Unit 1-12	No Cultural Resources
U-87-AF-636s,i	Archeological-Environmental Research Corporation	Cultural Resource Evaluation of Two Proposed Well Locations in the Hill Creek Locality of Uintah County, Utah	No Cultural Resources
U-04-AY-993b	An Independent Archaeologist	Dominion Exploration & Production: Little Canyon Unit #11-17H; A Cultural Resource Inventory for a well pad, its access, and flowline, Uintah County, Utah	No Cultural Resources
U-04-MQ-1424b,i	Montgomery Archaeological Consultants, Inc.	Cultural Resource Inventory of Ute/FNR LLC's Wild Horse Bench Proposed Pipeline, Uintah County, Utah	42Un4557 through 42Un4580 42Un4593
U-05-MQ-1010b,s	Montgomery Archaeological Consultants, Inc.	Cultural Resource Inventory of EOG Resources, Inc.'s Five Proposed Wells: Wild Horse Divide #1-3, 3-3, 5-3, 10-4, and 11-4 in Uintah County, Utah	No Cultural Resources
U-06-MQ-0504b,i	Montgomery Archaeological Consultants, Inc.	Cultural Resource Inventory of Questar Gas Management's Proposed Mak-J Pipeline Uintah County, Utah	42Un5237 42Un5238

## 5. FIELD SURVEY

The objective of the field inventory is to identify and document all eligible prehistoric and historic archaeological sites, as well as areas that may have a high probability of significant subsurface materials that may be impacted by the proposed undertaking. During the survey, the ground surface is examined for archaeological artifacts, features, or other evidence of human presence including charcoal-stained sediments or rock surface oxidation indicating the presence of fire. Particular consideration is given to areas of existing surface disturbance, including areas of erosion, cutbanks, animal

burrows, anthills, roads, and other areas of construction activities as these areas provide indications of the potential for subsurface deposits of cultural material.

The Class III field inventory was conducted on all areas proposed for surface disturbance. At each proposed well location, a 10-acre square parcel is defined, centered on the well pad center stake. The survey area width for the access road and pipeline routes is 30 meters (100 feet) to either side of the centerline. A 100 percent pedestrian coverage survey is then conducted on the entire 10-acre area with archaeologists walking parallel transects spaced at 15 meters (45 feet) apart.

## **6. SUMMARY OF THE KNOWN CULTURAL RESOURCES**

This Class III inventory resulted in the identification of six previous cultural resource inventories that were conducted within 1 mile of the Project Area. These previous inventories resulted in the identification of 27 archaeological sites. Only two of these previously documented sites (**42Un4566** and **42Un5237**) are located in the present area of potential effect. In addition, 10 IFs were documented during the current inventory.

No new sites were recorded during the survey of 58.46 acres for Dominion's Proposed Wild Horse Bench locations #11-5 and #15-5, associated access road, and pipeline. Sites **42Un4566** and **42Un5237** and the 10 IFs documented during the current inventory are summarized below.

### **42Un4566**

**Site Type:** Historic Temporary Camp

**Cultural Affiliation:** Euro-American

**Eligibility Recommendation:** Not Eligible

Site **42Un4566** was originally recorded by Montgomery Archaeological Consultants in 2004 (Lower-Eskelson and Montgomery 2004). At that time, the site was described as consisting of a low density tin can and glass scatter with two features: a wood chip scatter and a rock alignment. Feature A is a rock alignment which is constructed of two tan, tabular, unmodified sandstone slabs, one of which sits in an upright position. The upright slab measures 16" x 3" x 4 ¼" above MGS. This feature does not exhibit oxidation and no charcoal or soil staining are visible. Feature B is a wood chip scatter comprised of approximately 50 juniper wood chips situated 16 feet south of Feature A. The scatter forms an oblong shape which measures 9' x 5'. The larger pieces in the scatter are visibly axe-cut. The artifact assemblage consists of six Hole-in-Top cans, 13 sanitary cans, and two sanitary lids. Four of the Hole-in-Top cans date from 1930-1975. Additionally, two glass jars are located on the site. One of the jars features an "Anchor Hocking" trademark dating from 1920-1964, and the other features a "Latchford Marble Glass Co." trademark dating from 1939-1957.

The condition of the site at original recording was listed as good, however, it was determined to be ineligible for listing on the NRHP. The justification for this determination was that this site type is common and well-documented for this area. Furthermore, it was described as lacking in potential depth. B&A archaeologists revisited this site for the current project. Although some isolated Hole-in-Top cans and a scarce scattering of glass was located in the general vicinity of the original recording, the features and other components of the originally recorded artifact assemblage were not

located. It is believed that the recent installation (2005-2006) of an underground pipeline that runs along the east side of the existing road at this location resulted in the destruction of the majority of this site.

**42Un5237**

**Site Type:** Temporary Camp

**Cultural Affiliation:** Euro-American

**Eligibility Recommendation:** Eligible

Site **42Un5237** was originally recorded by Montgomery Archaeological Consultants in 2006 (Lower-Eskelson 2006). At that time, the site was described as a historic temporary sheep herding camp situated on the east edge of Wild Horse Bench. The site is dissected by a bladed road. One feature, a depression which probably represents a dismantled tent platform, was located at the site. Cultural materials include tin cans, glass, enamel ware, and miscellaneous artifacts. Tin cans include 18 hole-in-top cans (date range: 1930-1975, 1915-1925, and 1935-1945), 11 sanitary food containers of which four are embossed with "Sanitary" (1904-1908), 20 tobacco tins (pre-1948), and a can fragment. Glass items consist of a light green soda (crown top) bottle and an aqua paneled medicine container (1880-1910) along with 70 clear, aqua, and light green fragments. Two rifle cartridges were found, one embossed with "Peters" (1887-1934) and the other with W.R.A. Co. (1866-1932). Miscellaneous items include a Granite Ware enamel bowl, a piece of baling wire, and a complete pair of sheep shears. The artifacts were located in two distinct areas; one north of the road which bisects the site, and one south of it. The feature and several milk cans are located in the northern portion while the glass, ammunition cartridges, and sheep shears are located in the south. Based on the temporal indicators, there appears to be three more or less discrete occupational periods at the site. The earliest dates between 1904 and 1908 based on the milk cans labeled with "Sanitary." The next period is represented by the milk cans dating 1915 to 1925, and the latest is 1935-1945 as shown by a single milk can embossed with "PUNCH HERE."

The condition of the site at original recording was listed as good and it was determined to be eligible for listing on the NRHP. The justification for this determination was that the site is a historic temporary camp with several pre-Depression Era occupations related to shepherding on the Ouray and Uintah Indian Reservation. The site exhibits several classes of artifacts (notably the sheep shears) which could shed light on the range of activities in the area. Although many range camps have been documented on this reservation, very few exhibit artifacts delineating the function of the campsite. Cultural materials also indicate that several types of activities were conducted at this location, including sheep maintenance, hunting, consumption, and perhaps sleeping. Therefore, the site was recommended as eligible to be listed on the NRHP under Criterion D because it is likely to provide important information about land use patterns, livelihood, foodways, and spatial organization on the reservation.

B&A archaeologists revisited this site for the current project. Most of the component artifacts, including the hole-in-top cans, sanitary cans, tobacco tins, baling wire, sheep shears (**Figure 6.1**), and glass shards (**Figure 6.2**) were relocated during the present survey. The Granite Ware enamel bowl, rifle cartridges, and intact bottles were not located (the remains of one broken bottle was located [see **Figure 6.3**]). In addition to the artifacts described in the original recording of site **42Un5237**, B&A archaeologists also identified a variety of wood debris (**Figures 6.4, 6.5, and 6.6**), a baking powder tin

embossed with "Clabber Girl Baking Powder" on the lid (**Figure 6.7** and **6.8**), one piece of charcoal chalk (**Figure 6.9**), and one intact jar with lid with an "AHK" punt mark, which is believed to be associated with Alexander H. Kerr & Company (1909-1992) (**Figure 6.10** and **6.11**). Based on the site's continued integrity, it is recommended that the original eligibility determination remain unchanged.



Figure 6.1 Sheep Shears at Site 42Un5237





Figure 6.2 Aqua Glass Shards at Site 42Un5237



Figure 6.3 Broken Clear Glass Bottle at Site 42Un5237

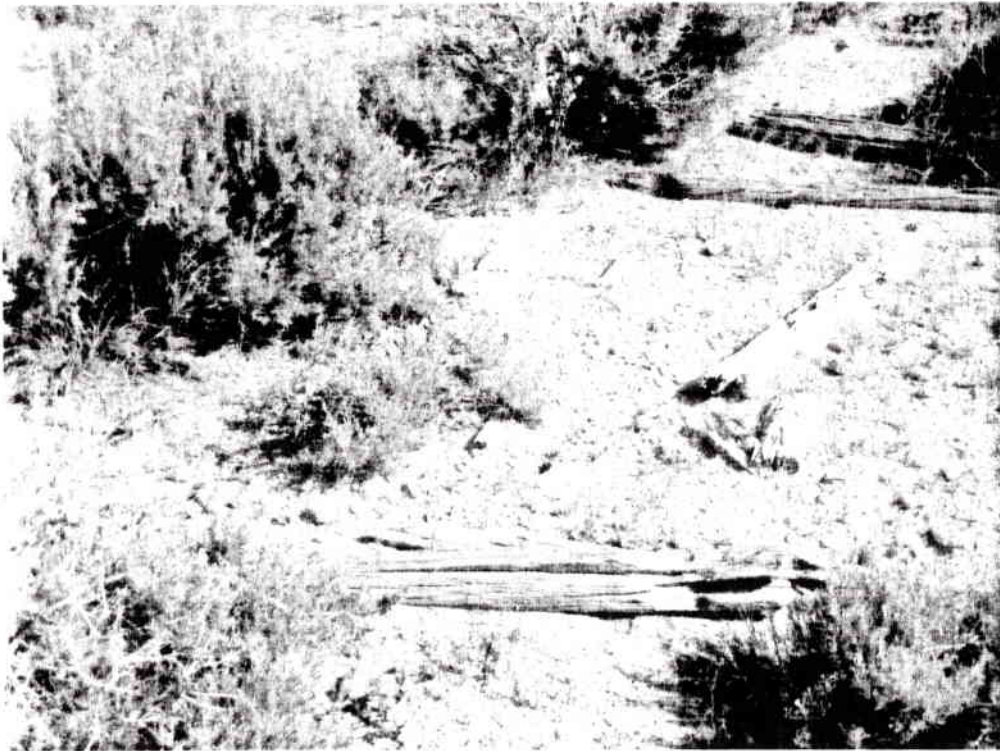


Figure 6.4 Wood Debris at Site 42Un5237

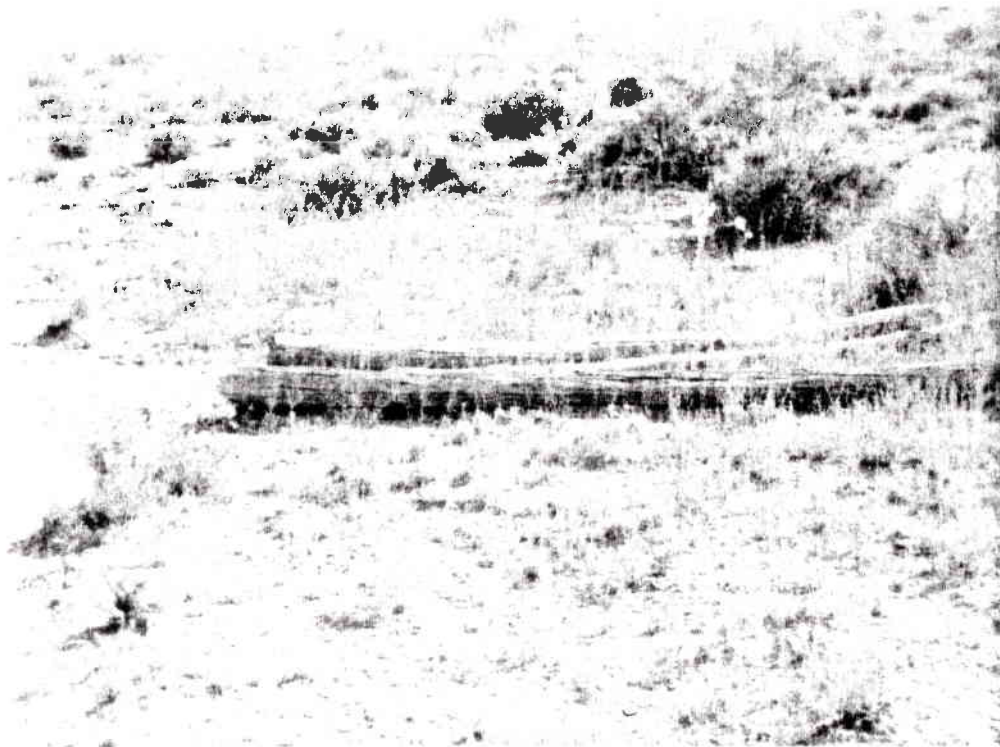


Figure 6.5 Wood Debris at Site 42Un5237



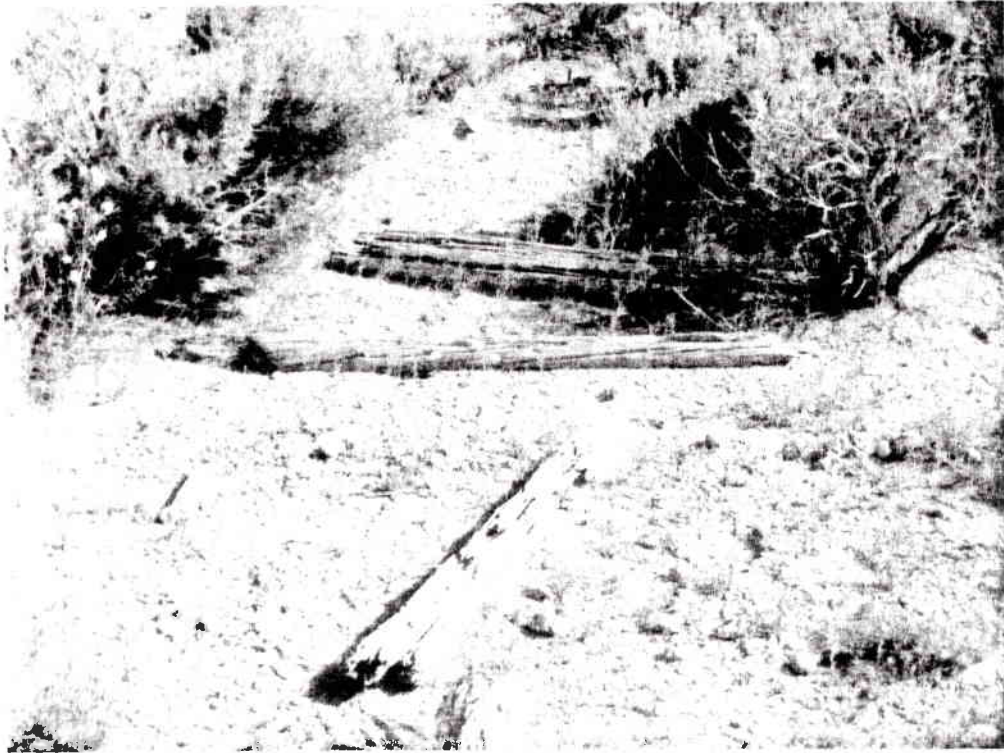


Figure 6.6 Wood Debris at Site 42Un5237

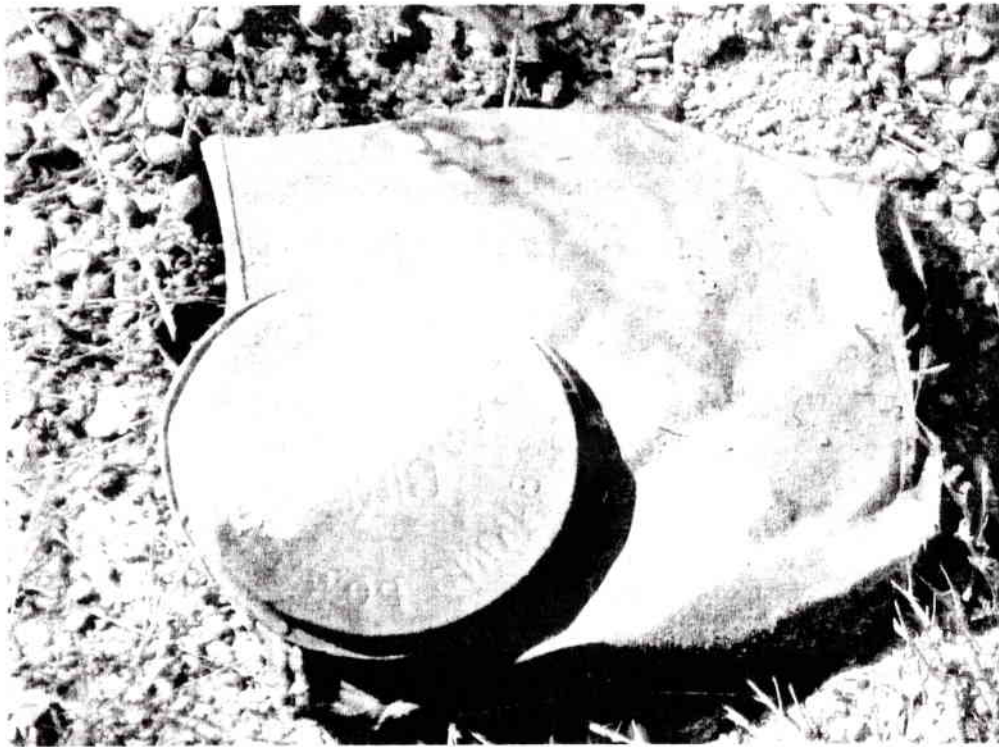


Figure 6.7 Clabber Girl Baking Powder Tin at Site 42Un5237





Figure 6.8 Clabber Girl Baking Powder Tin at Site 42Un5237

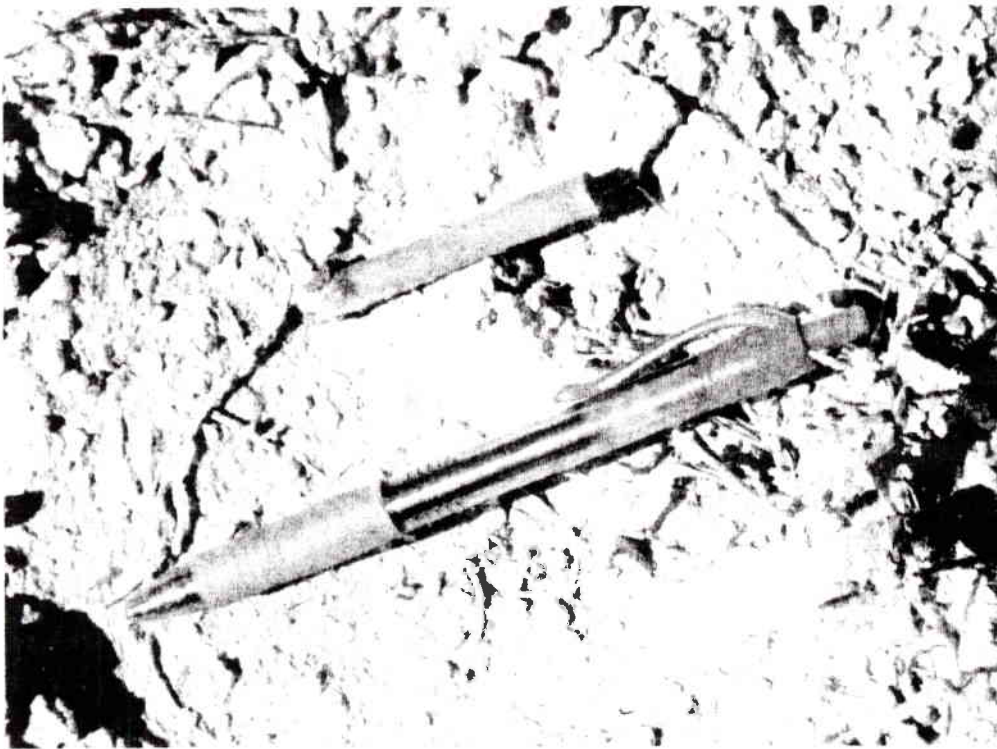


Figure 6.9 Charcoal Chalk at Site 42Un5237



Figure 6.10 Intact Jar with Lid at Site 42Un5237



Figure 6.11 "AHK" Makers Mark on Intact Jar with Lid at Site 42Un5237

**Table 6.1 Isolated Finds**

IF-07A	Pull-top beer can
IF-07B	Pull-top beer can
IF-07C	Hole-in-cap can
IF-07D	Pull-top beer can
IF-07E	Hole-in-cap can
IF-07F	Hole-in-cap can
IF-07G	Coors Banquet pull-top beer can
IF-07H	Coca-Cola bottle (intact)
IF-07M	Hole-in-cap can
IF-07N	Rock cairn (outside of APE)

## **7. EVALUATION AND RECOMMENDATIONS**

It is recommended that Site **42Un5237** originally recorded in 2006 and revisited during this inventory be avoided by the proposed undertaking. If the recommended avoidance measures are implemented, as shown in **Figure 1.1**, there will be no effects to any historic properties as a result of the undertaking. Therefore, a determination of "*no historic properties affected*" is proposed for the project pursuant to Section 106 of the NHPA (36 CFR 800).

To minimize any potential damage to or destruction of cultural resources and to maintain compliance with Federal and State cultural resource legislation, the following stipulations should be adhered to by all project personnel:

- The operator and its contractors would inform their employees about Federal regulations intended to protect cultural resources. All personnel would be informed that collecting artifacts, including arrowheads, is a violation of Federal law.
- If cultural resources are uncovered during surface-disturbing activities, the operator and its contractors would suspend all operations at the site and the discovery would be immediately reported to the authorized officer, who would arrange for a determination of significance in consultation with the SHPO, and if necessary, recommend a recovery or avoidance plan.
- All vehicular traffic, personnel and equipment movement, and construction activities should be confined to the locations surveyed for cultural resources as referenced in this report, and to the existing roadways and/or inventoried access routes.

## 8. REFERENCES

- Burton, D.K. 1996. *A History of Uintah County. Scratching the Surface*. Utah Centennial County History Series. Utah State Historical Society and Uintah County Commission, Salt Lake City, Utah.
- Burton, D.K. 1998. *Settlements of Uintah County, Digging Deeper*. Utah Centennial County History Series. Utah State Historical Society and Uintah County Commission, Salt Lake City, Utah.
- Callaway, D., J. Janetski, and O.C. Stewart. 1986. Ute. In *Great Basin*, edited by Warren L. D'Azevedo, pp. 336-367. Handbook of North American Indians, Volume II: Great Basin, edited by William C. Sturtevant, Smithsonian Institution, Washington.
- Clemmer, R.O. 1986. Hopis, Western Shoshones, and Southern Utes: Three Different Responses to the Indian Reorganization Act of 1934. *American Indian Cultural and Research Journal* 10:15-40.
- Hauck, F.R. 1986. Cultural Resource Examination of Four Proposed Well Locations in the Saddletree Draw - Atchees Wash Locality of Uintah County, Utah. Archaeological-Environmental Research Corporation, Bountiful, Utah. Report No. U-86-AF-781b.
- Holmer, R. 1986. Projectile Points of the Intermountain West. In *Anthropology of the Desert West: Essays in Honor of Jesse D. Jennings*, edited by Carol J. Condie and Don D. Fowler, pp. 89-116. *University of Utah Anthropological Papers* No. 110. Salt Lake City.
- Janetski, Joel. 1994. *Recent Transitions in the Eastern Great Basin: The Archaeological Record*. In *Across the West: Human Population Movement and the Expansion of the Numa*, edited by David B. Madsen and David Rhode, pp. 157-178. University of Utah Press, Salt Lake City, Utah.
- Jennings, J.D. 1986. *Handbook of North American Indians, Volume 11, Great Basin*. Subeditor and contributor. Washington, D.C.: Smithsonian Institution. American archaeology 1930-1985: One person's view. In *American Archaeology: Past, Present, and Future. A Celebration of the Society for American Archaeology, 1935-1985*, eds. D. Meltzer, D. Fowler, and J. A. Sabloff. Washington, D.C.: Smithsonian Institution Press.
- Lower-Eskelson, K. and K. Montgomery. 2004. Cultural Resource Inventory of Ute/FNR LLC's Wild Horse Bench Proposed Pipeline, Uintah County, Utah. Montgomery Archaeological Consultants, Moab, Utah. Project No. U-04-MQ-1424b,i.
- Lower-Eskelson, K. 2006. Cultural Resource Inventory of Questar Gas Management's Proposed Mak-J Pipeline (T11S R19E Section 12 & T11S R20E Sections 7, 8, 9, 15 & 16) Uintah County, Utah. Montgomery Archaeological Consultants, Moab, Utah. Project No. U-06-MQ-0504b,i.
- Marwitt, J.P. 1970. Median Village and Fremont Culture Regional Variation. *University of Utah Anthropological Papers* No. 95. Salt Lake City.

Reed, A.D. 1994. The Numic Occupation of Western Colorado and Eastern Utah during the Prehistoric and Protohistoric Periods. In *Across the West: Human Population Movement and the Expansion of the Numa*, edited by D.B. Madsen and D. Rhode. University of Utah Press.

Shields, W.F. 1970. The Fremont Culture in the Uinta Basin. Paper presented at the Fremont Culture Symposium, 35<sup>th</sup> Annual Meeting of the Society for American Archaeology, Mexico City.

Spangler, J.D. 1995. Paradigms and Perspectives, A Class I Overview of Cultural Resources in the Uinta Basin and Tavaputs Plateau, Volume II. Uinta Research, Salt Lake City, Utah.

# PALEONTOLOGY EVALUATION SHEET

---

**PROJECT:** Dominion Exploration ROAD & PIPELINE CHANGE to WHB #11-5H & #15-5H

**LOCATION:** Fourteen miles south of Ouray, Utah. SW Section 5, T11S, R20E, S.L.B.&M.

**OWNERSHIP:** PRIV[ ] STATE[ ] BLM[ ] USFS[ ] NPS[ ] IND[ X ] MIL[ ] OTHER[ ]

**DATE:** June 24, 2007

**GEOLOGY/TOPOGRAPHY:** Uinta Formation, lower part, Eocene Age. Location sits on a narrow ridge, part of Wild Horse Bench, south of Browns Canyon. There is a lot of bench top cover of silty sand and weathering rock fragments. The road and pipeline come in from the west across the bench through several small saddles with Uinta Formation exposures. Also, there are Uinta Formation exposures near and along the canyon walls.

**PALEONTOLOGY SURVEY:** YES [ X ] NO Survey [ ] PARTIAL Survey [ ]  
Performed a survey of the short road and pipeline change to the well location.

**SURVEY RESULTS:** Invertebrate [ ] Plant [ ] Vertebrate [ ] Trace [ ] No Fossils Found [ X ]

**PALEONTOLOGY SENSITIVITY:** HIGH [ ] MEDIUM [ x ] LOW [ X ] (PROJECT SPECIFIC)

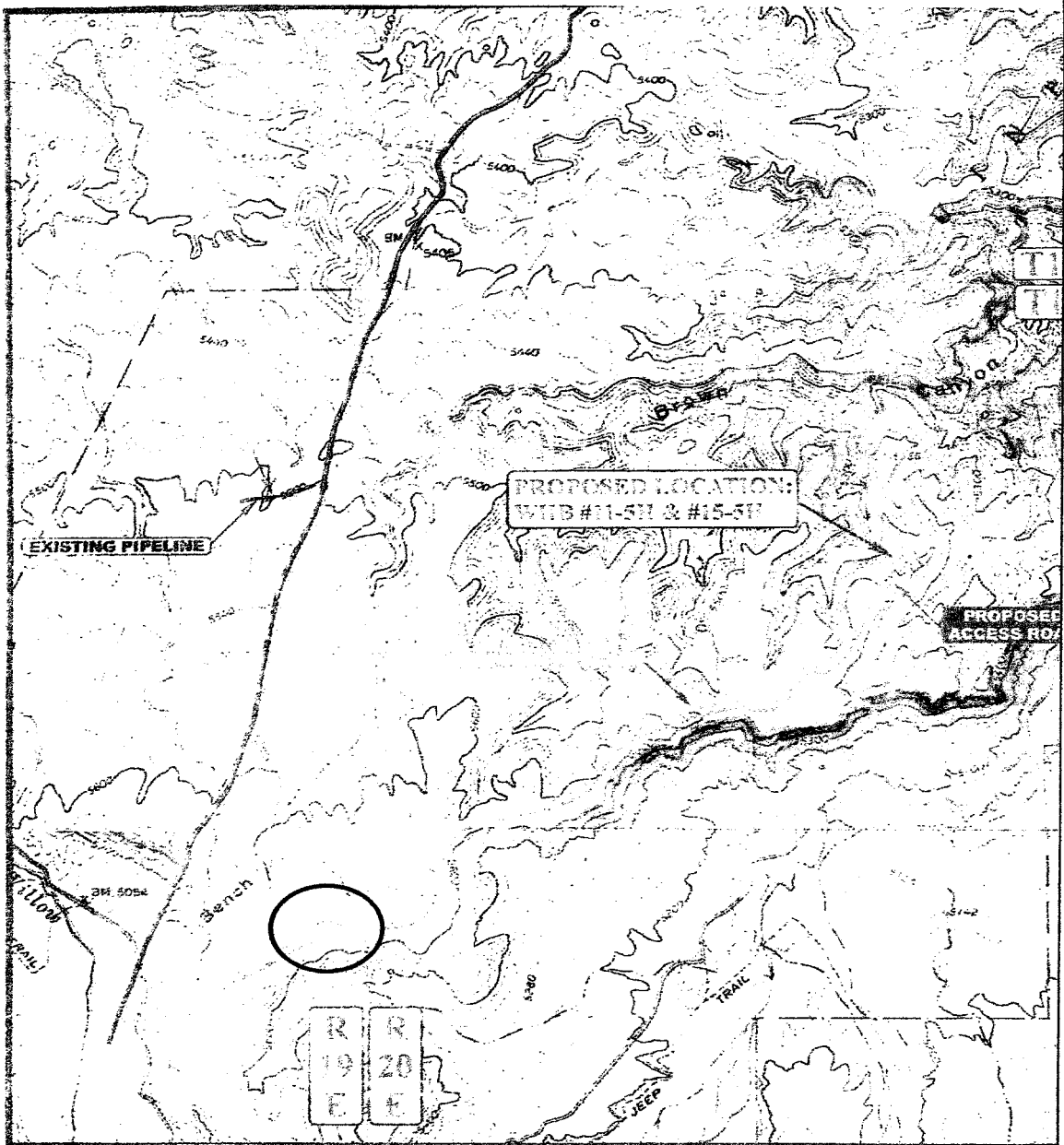
**MITIGATION RECOMMENDATIONS:** NONE [ X ] OTHER [ ] (SEE BELOW)

No recommendations are being made for this well location.

There is always some potential for discovery of significant paleontological resources in the Uinta Formation. If significant vertebrate fossils (mammals, crocodiles, complete turtle shells, etc.) are encountered during construction, work should stop in that area and a paleontologist should be contacted to evaluate the material discovered.

**PALEONTOLOGIST:** Alden H. Hamblin

*A.H. Hamblin Paleontological Consulting, 3793 N. Minersville Highway, Cedar City, Utah 84720 (435) 867-8355  
Utah State Paleontological Permit # 07-355, BLM paleontological Resources Permit # UT-S-05-02,  
Ute Tribe Access Permits – 03/31/07 & 09/30/07. Utah Professional Geologist License – 5223011-2250.*



# **LEGEND:**

PROPOSED ACCESS ROAD  
 EXISTING PIPELINE  
 PROPOSED LOCATION  
 PROPOSED ACCESS ROAD



Utah Engineering & Land Surveying  
 85 South 200 East Vernal, Utah 84078  
 (435) 789-1017 \* FAX (435) 789-1813

# **DOMINION EXPL. & PROD., INC.**

WTB #11-5H & #15-5H  
 SECTION AT 1/4 COR. S.E. 1/4 S. 20 N. E. 1/4 S. 20 E.  
 SE 1/4 S. 20 E.

SCALE: 1" = 2000' DRAWN BY: L.A. REVISION: 05-30-07

Road & Pipeline Change

**WORKSHEET**  
**APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 11/28/2007

API NO. ASSIGNED: 43-047-39848

WELL NAME: WHB 15-5H

OPERATOR: XTO ENERGY INC ( N2615 )

PHONE NUMBER: 435-722-4521

CONTACT: DON HAMILTON

PROPOSED LOCATION:

SESW 05 110S 200E

SURFACE: 1255 FSL 2069 FWL

BOTTOM: 0650 FSL 2000 FEL

COUNTY: UINTAH

LATITUDE: 39.88563 LONGITUDE: -109.7039

UTM SURF EASTINGS: 610826 NORTHINGS: 4415657

FIELD NAME: UNDESIGNATED ( 2 )

INSPECT LOCATN BY: / /

Tech Review	Initials	Date
Engineering		
Geology		
Surface		

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU-39223

SURFACE OWNER: 2 - Indian

PROPOSED FORMATION: MVRD

COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

☒ Plat  
☒ Bond: Fed[1] Ind[] Sta[] Fee[]  
(No. UTB-000138 )  
☒ Potash (Y/N)  
☒ Oil Shale 190-5 (B) or 190-3 or 190-13  
☒ Water Permit  
(No. 43-10447 )  
☒ RDCC Review (Y/N)  
(Date: \_\_\_\_\_ )  
☒ Fee Surf Agreement (Y/N)  
☒ Intent to Commingle (Y/N)

LOCATION AND SITING:

☐ R649-2-3.  
Unit: \_\_\_\_\_  
☐ R649-3-2. General  
Siting: 460 From Qtr/Qtr & 920' Between Wells  
☐ R649-3-3. Exception  
☐ Drilling Unit  
Board Cause No: \_\_\_\_\_  
Eff Date: \_\_\_\_\_  
Siting: \_\_\_\_\_  
☒ R649-3-11. Directional Drill

COMMENTS: \_\_\_\_\_

STIPULATIONS: \_\_\_\_\_

1- Federal Approval  
2- Spacing Shp



# NATURAL BUTTES FIELD

HCU 14-31F

HCU 15-31F

HCU 16-31F  
HCU 16-31F  
HCU 12-32F  
HCU 13-32F

HCU 15-32F

HCU 14-32F

T10S R20E

T11S R20E

WHB 5-5H  
WHB 4-5H

BHL 3-5H

WHB 3-5H  
WHB 6-5H

BHL 6-5H

BHL 5-5H

WHB 12-5H

BHL 11-5H

WHB 11-5H  
WHB 15-5H

WILLOW  
CREEK UNIT 2

BHL 15-5H

WHB 13-5H

WHB 4-8H

LITTLE CANYON UNIT

LCU 8-8H

LCU 5-9H

LCU 6-9H

OPERATOR: XTO ENERGY INC (N2615)

SEC: 5 T.11S R. 20E

FIELD: UNDESIGNATED (002)

COUNTY: UINTAH

SPACING: R649-3-11 / DIRECTIONAL DRILLING

**Field Status**  
 [ ] ABANDONED  
 [ ] ACTIVE  
 [ ] COMBINED  
 [ ] INACTIVE  
 [ ] PROPOSED  
 [ ] STORAGE  
 [ ] TERMINATED

**Unit Status**  
 [ ] EXPLORATORY  
 [ ] GAS STORAGE  
 [ ] NF PP OIL  
 [ ] NF SECONDARY  
 [ ] PENDING  
 [ ] PI OIL  
 [ ] PP GAS  
 [ ] PP GEOTHERML  
 [ ] PP OIL  
 [ ] SECONDARY  
 [ ] TERMINATED

## Wells Status

[ ] GAS INJECTION  
 [ ] GAS STORAGE  
 [ ] LOCATION ABANDONED  
 [ ] NEW LOCATION  
 [ ] PLUGGED & ABANDONED  
 [ ] PRODUCING GAS  
 [ ] PRODUCING OIL  
 [ ] SHUT-IN GAS  
 [ ] SHUT-IN OIL  
 [ ] TEMP. ABANDONED  
 [ ] TEST WELL  
 [ ] WATER INJECTION  
 [ ] WATER SUPPLY  
 [ ] WATER DISPOSAL  
 [ ] DRILLING



OIL, GAS & MINING



PREPARED BY: DIANA MASON  
 DATE: 30-NOVEMBER-2007



JON M. HUNTSMAN, JR.  
Governor

GARY R. HERBERT  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil Gas and Mining

JOHN R. BAZA  
Division Director

December 3, 2007

XTO Energy, Inc.  
P O Box 1360 978 North Crescent  
Roosevelt, UT 84066

Re: WHB 15-5H Well, Surface Location 1255' FSL, 2069' FWL, SE SW, Sec. 5, T. 11 South,  
R. 20 East, Bottom Location 650' FSL, 2000' FEL, SW SE, Sec. 5, T. 11 South,  
R. 20 East, Uintah County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. § 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-39848.

Sincerely,

Gil Hunt  
Associate Director

pab  
Enclosures

cc: Uintah County Assessor  
Bureau of Land Management, Vernal Office



Operator: XTO Energy, Inc.  
Well Name & Number WHB 15-5H  
API Number: 43-047-39848  
Lease: UTU-39223

Surface Location: SE SW      Sec. 5      T. 11 South      R. 20 East  
Bottom Location: SW SE      Sec. 5      T. 11 South      R. 20 East

### Conditions of Approval

#### 1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

#### 2. Notification Requirements

Notify the Division within 24 hours of spudding the well.

- Contact Carol Daniels at (801) 538-5284

Notify the Division prior to commencing operations to plug and abandon the well.

- Contact Dustin Doucet at (801) 538-5281      (801) 733-0983 home

#### 3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.
5. In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.
6. This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Vernal Field Office  
170 South 500 East  
Vernal, UT 84078  
(435) 781-4400 Fax: (435) 781-4410



IN REPLY REFER TO:

3160

UT08300

December 6, 2007

Ken Secrest  
XTO Energy, Inc.  
PO Box 1360  
978 North Crescent  
Roosevelt, UT 84066

43-047-39848  
Re: Well No. WHB 15-5H  
SESW, Sec. 5, T11S, R20E  
Uintah County, Utah  
Lease No. UTU-39223

Dear Ken:

The Application for Permit to Drill (APD) the above referenced well submitted November 28, 2007, is being returned unapproved per your request on December 4, 2007 verbally to Administrative Assistant Gail Jenkins. If you intend to drill at this location at a future date, a new APD must be submitted.

If you have any questions regarding APD processing, please contact me at (435) 781-4455.

Sincerely,

*Cindy Severson*

Cindy Severson  
Land Law Examiner

cc: UDOGM  
Brenda Waller  
Don Hamilton



JON M. HUNTSMAN, JR.  
Governor

GARY R. HERBERT  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

December 13, 2007

Don Hamilton  
XTO Energy Inc.  
PO Box 1360 978 North Crescent  
Roosevelt, UT 84066

Re: APD Rescinded –WHB 15-5H Sec. 5 T. 11S R. 20E  
Uintah County, Utah API No. 43-047-39848

Dear Mr. Hamilton:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on December 3, 2007. On December 11, 2007 you requested that the division rescind the approved APD.

No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective December 11, 2007.

A new APD must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

Diana Mason  
Environmental Scientist

cc: Well File  
Bureau of Land Management, Vernal

